Web Based Wedding Hall Management System

For

Loyolas Wedding Hall, Jaffna

A.V.Elan Yalini

2017

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BIT Registration Number: R092184

Index Number: 0921841

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2017

This dissertation is submitted in partial fulfilment of the requirement of the Degree of Bachelor of Information Technology (external) of the University of Colombo School of Computing

DECLARATION

DECLARATION

I certify that this dissertation does not incorporate, without acknowledgement, any material previously submitted for a Degree or Diploma in any University and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for inter-library loans, and for the title and summary to be made available to outside organizations.

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ABSTRACT

A wedding is a ceremony and associated rituals by which two people vow to spend their lives together in marriage. It is the most important event in everyone life. As people spend lots of money and time on weddings, but they involve their selves in each and every affair in such a way that at the end of the day they feel that they have not seen the wedding of their only Son/Daughter or they have not been able to enjoy the functions. These problems are solved by wedding halls. There are many halls in Jaffna district. 'Loyolas Wedding Hall 'is one of the most popular wedding hall in Jaffna town. It was started on 2001. This wedding hall maintains that processes in manually, but now– a– days in the modern world people like save their precious time and they wish their works done through the online. In the competitive business world, Loyolas Wedding Hall also wants to change their system to online to attract the people.

The web based wedding hall management system act as a bridge between potential users and wedding planners. Web based Loyolas wedding hall management system facilitate not only booking wedding hall but also booking beautician, photographer, videographer and select beautician packages, video packages, meals packages etc. So customer can select suitable one from many options as their wish. This system generates many reports according to the user's wish. Customers don't want to wait until the office open. They using an online booking system means that the business is open 24 hours a day, seven days a week from anywhere. The system will provide efficient, effective and timely services.

This web based wedding hall management system has mostly been developed using some modern tools and software. PHP which is a powerful server side scripting language has been used for server side scripting along with the Wamp server and MySQL which is a relational database management system. This combination ensures a high portability to develop the system. The system was testing by client with sample data and all modules were tested and also various type of users were login and test the system based on user privilege.

ACKNOWLEDGEMENT

I wish to thank, who have helped me in prepared this dissertation and encourage me to provide effective software project.

First of all I would grateful to the University Of Colombo School Of Computing for providing the opportunity to present this project work. They contribute the standard computer studies in Srilanka. They initiate the BIT Degree program and formulating project work.

I thank to my supervisor Mr.K.Venugoban and Mr.S.Theivamainthan, who is guiding me and give me lot of ideas, advices to fulfill the project work. They spends lot of time to evaluate this project.

I would like to thank all the Staffs of Loyolas Wedding Hall,Jaffna, Specially the owner Mr.A.C.Loyola who grant me permission to undertake the software project and the clerk & staffs, who are cooperate and give all the instructions of the wedding hall management system of Loyolas wedding hall.

I also thank to my family and friends who have been a tower of strength, for proof reading this dissertation. They encourage me to do the project as well.

Most importantly, thanks and praise to the almighty God for guiding me and for all the blessings he has bestowed on me.

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LIST OF ACRONYMS

1NF / 2NF / 3NF - First / Second / Third Normal Form

Ajax - Asynchronous JavaScript Technology and XML

CSS - Cascading Style Sheets

DBMS - Database Management Systems

ER - Entity Relationship

GB - Gigabyte

GUI - Graphical User Interface

HTML - Hyper Text Markup Language

PHP - Hypertext Pre-processor

PK - Primary Key RAD

RAD - Rapid Application Development

RAM - Random Access Memory

RUP - Rational Unified Process

SMS - Short Message Service

SQL - Structured Query Language

UAT - User Acceptance Testing

URL - Uniform Resource Locator

WAN - Wide Area Network

XML - Extensible Mark-up Language

CHAPTER 01 : INTRODUCTION

Loyolas wedding hall is one of the famous wedding hall in Jaffna district. It was started on 2001. Many people in Jaffna choose this wedding hall due to several reasons such as the iconic location, eye catching decorations and many facilities from the wedding hall. Weddings, receptions, birthday parties, puberty ceremonies and other functions are celebrating here. There are three separate halls, so three functions can be held at the same time. Air-conditioned hall and non-air condition hall also here. Decorations are done according to the customers wish.

Loyolas wedding hall is using a manual system to handle the processes. If a customer want booking, he/she wants come to the office and the details are recorded in a file and those files are stored in a special cabinet. Calculations of bills and inventory items are done by manually too. The web based wedding hall management system will be covering all the basic processes done in the wedding hall. It would handle Staff details, customer details, hall booking details, beautician booking details, meals booking details, price details, payment calculations etc.

All the above mentioned details and information are stored in the system database. It could save time when retrieving data from the database. Interfaces will be designed user friendly and the functions will be displayed in a simple manner. The system will give remedies for the problems that are currently facing by the client. Shifting the new system can acquire advantages such as saving of time, man hours and space wastage. This will increase the efficiency in wedding hall daily activities.

1.1 Motivation for project

Everyone knows that in order to make their wedding day special they'll need to make a few important decisions along the way. Among the biggest choices they'll have to make is picking the right wedding venue. Some years ago in Jaffna, most weddings and other functions held in their homes, but now – a – days in this stylish world they wish to celebrate their functions in a wedding hall.

Now, there are many wedding halls in Jaffna district. Loyalas Wedding Hall is one of the most popular halls in Jaffna town. It was started on 2001. This hall has three

different types of hall like air conditioned or Normal hall with different decorations. It has many facilities like wedding hall, catering service, rooms, Photography, video, photo location, Make ups, wedding things like bouquet and etc.

Even though in the competitive world, this wedding hall is running their all activities as manual. This manual system face more problems like take more time, take travelling cost, paper wastages, take more space, inefficient and etc.

In present customer want to visit to office for making booking, they visit and get basic details of hall, meal, price, package, payment method and etc, then customer booked for hall clerk want to check hall is available or not on that booking date after that customer make procedure to booking and package details. All those details such as customer details, booking details, payment details and package details are maintain in papers. The staff salary details were calculated manually based on basic salary, duty times, EPF and ETF and paid to staff by cash. And also they have not proper web site to publish their details via web so if want any details want to visit directly and get details from office.

If any have a business and don't have a website, they are losing out on great opportunities for their business. A website itself can be used to accomplish many different marketing strategies to help business grow. So the wedding hall wish to change that system as computer based information system. From this it can give that services any time and from anywhere. So they decided web based information system is very suitable for this wedding hall system.

So those drawbacks and their manual facing problems are motivated to give solution through the web based, through the web based wedding hall system they provide efficient, effective and timely services from anywhere and anytime. This system shows their facilities with prices. So customer can get online booking facility as their wish.

1.2 Objectives of the project

The objectives of this project listed below:

- The management can able to manage their details and prices of hall, beautician packages, meals packages, decoration, photography, staff, customer and etc.

- The system allows the user or member to perform service enquiry including service booking, service availability status, service details...etc.
- The customers can search hall, beautician and their packages, meals packages, decoration style, meals service, Photography and packages etc. as their wish.
- System has provided the user to register in order to be a member of the website. User is then granted privileges to book or cancels services.
- The customer can able to find the details of prices and search free dates for booking and make their booking through this system and can able to reserve hall and other facilities.
- Calculate the bill automatically based on booked hall, meal and video package and other facilities details and generate and print the bill.
- Customer can able to pay the money by ez-cash or bank or cash.
- The system facilitates to send alert messages to customer through system regarding booking, confirm and pending payment details.
- The management can able to generate reports in various categories such as booking or payment or salary or package in various type such as day or month or year wise.
- It is a graphical user interface and user friendly system, so management and customers can work with easily and also it reduces time for training.
- This is a cost effective system, because the application can be accessed from anywhere with used of computer with low memory and low processing power.

1.3 Scope

The scope of the web based project is to provide an efficient and effective system to Loyalas Wedding Hall, Jaffna to handle the day-to-day activities such as hall, wedding car, catering service, decoration, photography and etc., as well as manage their staff details, salary details, booking details, payment details and etc. as worldwide business and generating the report as easy. And also customer can able to search the details of Loyalas's facilities and other details and make book through web from their residence.

1.4 Structure of the dissertation

The dissertation contains many main chapters. After the Introduction chapter, the Analysis chapter describes the existing system, functional requirements, non-functional requirements, resource requirements, feasibility study and literature review for the this system and the process model used to develop the system. The Design chapter includes some diagrams relating to the system design. It further describes the designing approach used and designing of the data base as well as the user interfaces and it describes models and methodologies, alternative solutions etc. Implementation chapter provides the system implementation of this project including defining how the information system should be built, ensuring that the information system is operational and used, and also ensuring that the information system meets quality standard. In Evaluation chapter, we give evaluation of the project work. Finally, Conclusion chapter concludes this project work with a discussion of our findings towards and future extensions.

After the main chapters there is a reference section where all the materials referred to write the dissertation are given. Furthermore in the appendices, system documentation, design documentation, user documentation, management reports, test results, code listing and the client certificate are given. Finally, a glossary of terms annexed

CHAPTER 02 : ANALYSIS

2.1 Introduction

System analysis [1] is a method of figuring out the basic elements of a project and deciding how to combine them in the best way to solve a problem. This chapter is written to give an overview of the existing system as well as the fact gathering techniques and collected functional, non-functional requirements. Requirements collection and analysis is very important procedure for a project's success. Therefore significant amount of time and effort were put in this chapter. The main processes of this phase include domain understanding, requirements collection, classification, structuring, prioritization and validation. Suitable collective methods and procedures were engaged to carry out the analysis phase in an effective way.

2.2 Existing manual system

As we are new to this domain, a domain analysis was carried out through certain fact gathering techniques, and consulting domain experts in the domain's own terminology. At present about 25 employees are working here. The administration has to maintain the booking details and other details as paper based by hand. They are preparing the reports manually. The Users (customers) make booking manually.

As the current system is a file based one, management of the wedding hall has to put much effort on securing those files. They can be easily get damaged by a fire, insects or even by a natural disaster like tsunami. Keeping files takes much time and wastes precious man hours. Although can't trust the accuracy of calculations done by manually. If management wants to check for previous booking record or other details, management will be in a great problem. It's a tough and time taking process to search for a record in a file.

Most of the activities are not fully updated with new technologies and best practices. Some activities are carried out by partial computer processing using Microsoft Office – Excel & Access by operational users. The existing system was studied carefully to get better understanding. Major consideration has been given here to recognize each function in detail manner.

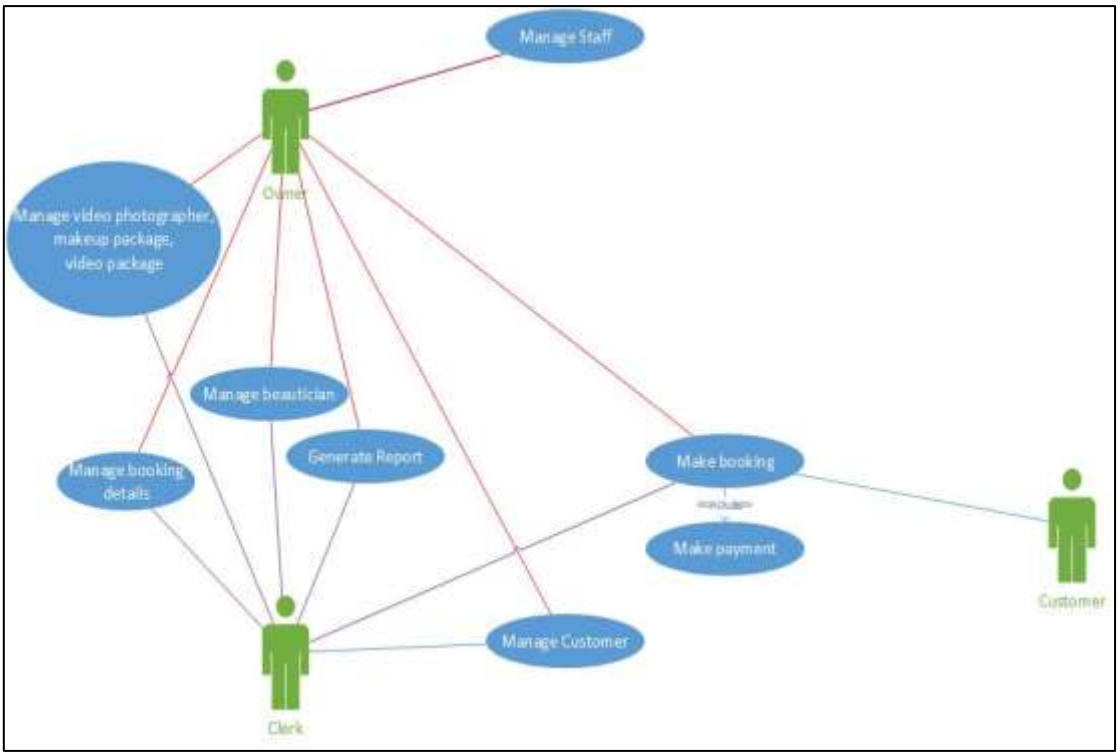


Figure 2.1 Use case diagram for existing manual system

2.2.1 Drawbacks of existing manual system

- Data duplication can be occurred by repeating the same thing over and over.
- Lack of security·
- Lack of storage common errors.
- Too much paper wastage. Paper takes up a massive amount of room in the site.
- Poor Data Storage - All the data stored in filing cabinets.
- Data could be misplaced due to human error.
- Data could be stolen very easily.
- Unavailability of Information·
- Slow Retrieval data.
- Manual systems staff spends a lot of their time on mechanical, clerical tasks.

2.3 Similar System

In order to understand the concepts and procedures of a wedding hall management system, some similar systems are available to study and research.

Aradana Hotel & Wedding hall

Aradana hotel & wedding hall [3] is situated in Baddegama Road, Pathana, Hikkaduwa, Srilanka. It is using a web based wedding hall management system which includes Graphical User Interfaces. It includes hotels, services, menus, gallery, Prices and contact us details. There are three reception halls of Aradana Group of Hotels - Aradana, Cinnamon Breeze, and Green Shadow - are the best places that can select as that special place for event.

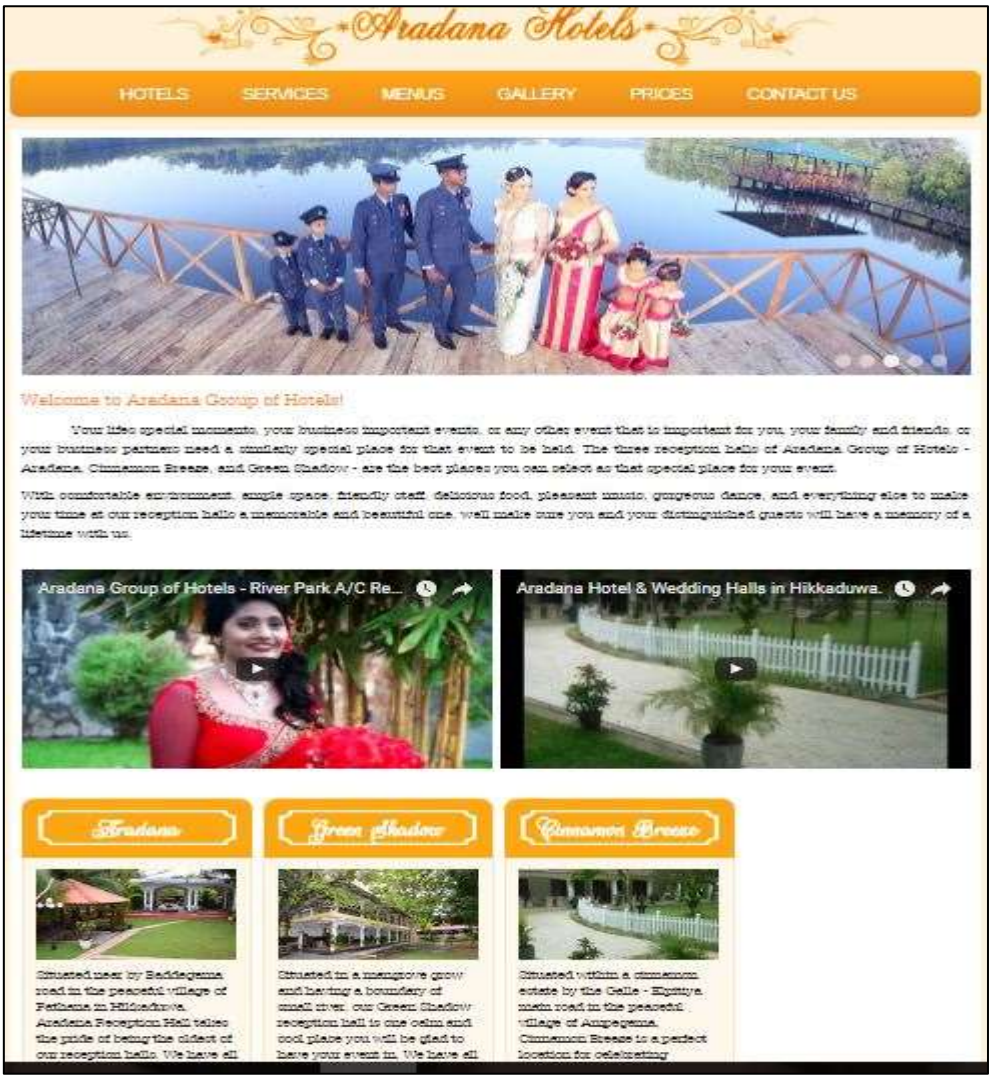


Figure 2.2 Aradana hotel & wedding hall

Soulmate celebration

Soulmate Celebration [4] Wedding Ceremonies is a professional wedding officiant service that has been part of the Rhode Island and nearby Massachusetts wedding

industry since 2009. This wedding hall website facilitate to customer in many ways. It includes all that services.

Figure 2.3 Soulmate celebration wedding officiants

Royal palace banquet hall

Royal palace[5] has been serving Glendale, Pasadena, Burbank, Sherman Oaks, North Hollywood and neighboring cities since 1995. The ballroom has served as one of the most volatile venues with its spacious room, lighting and furniture. Throughout the years Royal palace has enjoyed being a part of all their customers' celebration. It is a full service banquet and catering company.

Figure 2.4 Royal Palace banquet hall

2.4 Information gathering techniques

Multiple techniques were used here to capture requirements from different stakeholder perspectives. The main methods used for fact finding process were;

- Interview
- Observation
- Document review and scenarios
- Site visit

Facts were primarily gathered by interviewing the administrator who is the primary user of the this system. Additional knowledge needed to complete analysis, was discovered through observation and through gathering sample material such as booking registration forms.

Combinations of close-ended and open-ended interviews were conducted. These methods helped to prompt new questions related to the existing problems during interviews. It can be considered beneficial, when we intend to acquire more knowledge and understanding about the domain.

Observation was carried out to collect implicit information which plays a critical role in the system. Relevant documents and paper work of the existing manual system were analyzed and studied through a sampling process.

The captured facts were represented as scenarios and Use-Case diagrams to give a clear picture on basic requirements and interaction sessions of the system, which can be understood by both technical and non-technical personnel.

2.4.1 Functional requirements

A functional requirement [2] defines a function of a system or its component. A function is described as a set of inputs, the behavior, and outputs. In summery here are the functional requirements for the system as identified through the Analysis phrase.

- System should provide the user to register in order to be a member of the website. User is then granted privileges to book or cancels services.
- The system should allow the user or member to perform service enquiry including service booking, service availability status, service details...etc.

- The customers should search hall, beautician and their packages, meals packages, decoration style, catering service, Photography and their packages and etc. as their wish.
- The management should able to manage their details and prices of hall, beautician packages, meals packages, decoration, photography and etc.
- The customer should able to find the details of prices.
- The customer should search free dates for booking and make their booking through this system.
- Customer should able to reserve hall and other facilities.
- Customer should able to pay money in online.
- The management should able to get reports in various categories such as day or month or year wise.
- The system should facilitate to send alert messages to customer through system.
- Users should calculate the bill automatically and print the bill.

2.4.2 Non-functional requirements

Accuracy and Consistency

These are very important non-functional requirements that should be considered when storing the details of booking, staffs, and customers and calculating the amount and generate reports.

Security

There should be superior security mechanisms since the system stores very confidential information such as details of customer of the wedding hall.

Usability

Usability should be very much important in this project when developing the user profiles to the customers and administration. It wants to be handling very easy.

Reliability

This is a non-functional requirement of the system users. There should be trustworthiness between the users and the system.

2.4.3 Resource requirements

Hardware requirements

- Pentium 4 Computer
- Printer
- Internet facility
- Hosting and Domain

Software requirements

For Development

- Windows Operating System
- WampServer (PHP 5.4.12, MySQL 5.6.12, Apache 2.4.4)
- Adobe Dreamweaver CS5.5
- Adobe Photoshop css5
- CSS
- JavaScript
- Ajax
- MS Word

For Implementation

- Windows Operating System
- Browsers

CHAPTER 03:DESIGN OF SOLUTION

3.1 Introduction

“Systems design [6] is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements” . There are a lot of approaches for system designing, however the most widely used methods are the Object Oriented Design methods.”

3.2 Models and methodologies

A process model is a modelling methodology followed throughout the development. Iterative process model was chosen to develop this system. This is where small portions of software are developed to uncover important issues early, before problems or faulty assumptions can lead to disaster. Although there are many process models; RUP (Rational Unified Process) model was chosen over other models like prototyping model, waterfall model, Rapid Application Development.

The waterfall model [7] is a sequential approach, where each fundamental activity of a process represented as a separate phase, arranged in linear order . In the waterfall model, you must plan and schedule all of the activities before starting working on them (plan-driven process). The phases of the waterfall model are Requirements, Design, Implementation, Testing, and Maintenance. In principle, the result of each phase is one or more documents that should be approved and the next phase shouldn’t be started until the previous phase has completely been finished.

The spiral model [7] is a risk-driven where the process is represented as spiral rather than a sequence of activities. It was designed to include the best features from the waterfall and prototyping models, and introduces a new component; risk-assessment . Each loop (from review till service—see figure below) in the spiral represents a phase. Thus the first loop might be concerned with system feasibility; the next loop might be concerned with the requirements definition, the next loop with system design, and so on.

A prototype [7] is a version of a system or part of the system that's developed quickly to check the customer's requirements or feasibility of some design decisions. So, a prototype is useful when a customer or developer is not sure of the requirements, or of algorithms, efficiency, business rules, response time, etc. In prototyping, the client is involved throughout the development process, which increases the likelihood of client acceptance of the final implementation. The prototype model is shown in the following Figure 3.1

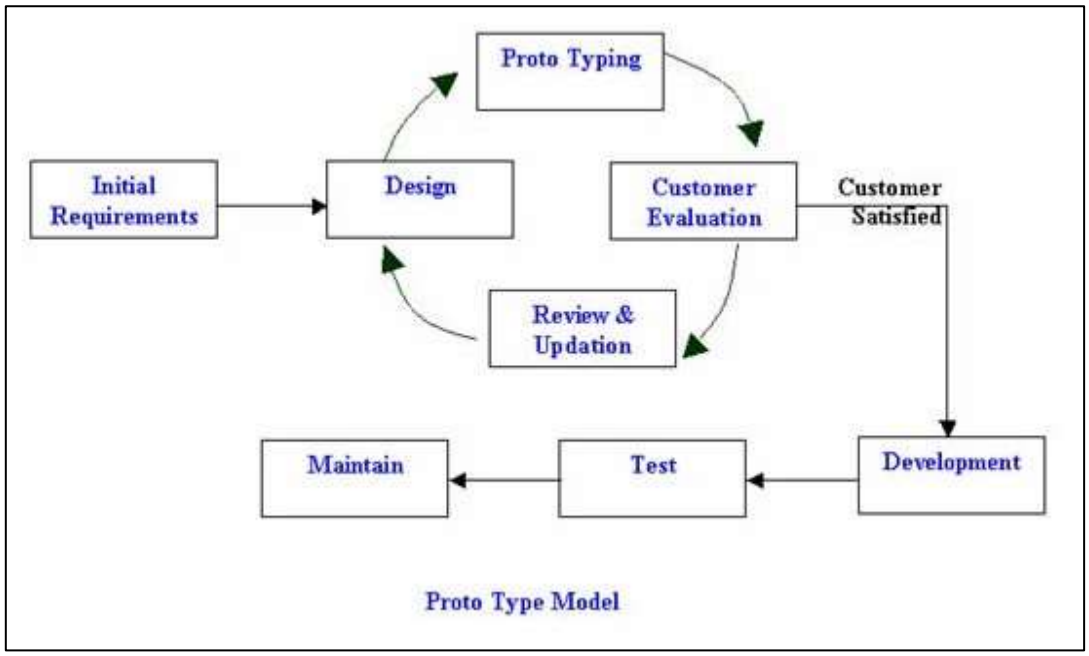


Figure 3.1 Prototyping model

3.3 Alternative Solutions

In software development all the system basically divided into three categories that are standalone, network based and web based system. Compare the web based wedding hall management system is; developing a standalone system or network system for the management. Table 3.1 shows the differences between windows based, web based and network based system.

	Windows based	Web based	Network
User Access	One	Unlimited	Limited group
Access from anywhere	×	Unlimited	Limited
Security	Less	High	More
Sharing facility	×	High	More

Table 3.1 Alternative solution

The standalone system most suitable for run with in small area using personal computers and work stations, so the standalone application run only a specific environment. The network based application usually developed for Local Area Network (LAN). In network based, application is loaded on server machine while the application exe on every client machine. The web application is accessed over a network connection using HTTP. Application is loaded on the server whose location may or may not be known and no exe is installed on the client machine, you have to test it on different web browser.

In this system users access the system from various places and customer make order from their places, management want to implement the database in centralized and access from various places, various type of user will access the system there for according to the above Table 3.1 web based is the best choice to develop wedding hall management system. Because management can maintain the details and generate reports and also customers can booking from anywhere. And their details also will be secure.

3.4 Process design

In the process design, it includes database design, application and architecture design and interface design.

3.4.1 Database design

Database design [8] is the process of producing a detailed data model of database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. A fully attributed data model contains detailed attributes for each entity.

The following is a brief description of the 1st, 2nd and 3rd Normal Forms.

1st Normal Form – A relation is in 1NF if the values in the relation are atomic for every attribute in the relation.

2nd Normal Form – A relation is in 2NF if no non key attribute is functionally depended on just a part of the key. Thus 2NF can only be violated only when a key is a composite key.

3rd Normal Form – A non-key attribute should not be functionally depended on another non key attribute.

The goals of database design are as follows,

- A database should provide for efficient storage, update, and retrieval of data.
- A database should be reliable – the stored data should have high integrity to promote user trust in the data.
- A database should be adaptable and scalable to new and unforeseen requirements and applications.
- A database should support the business requirement of the information system.

ER diagram for the system is shown in the Figure 3.2; this diagram was generating from MySQL Workbench 6.0.8 CE software:

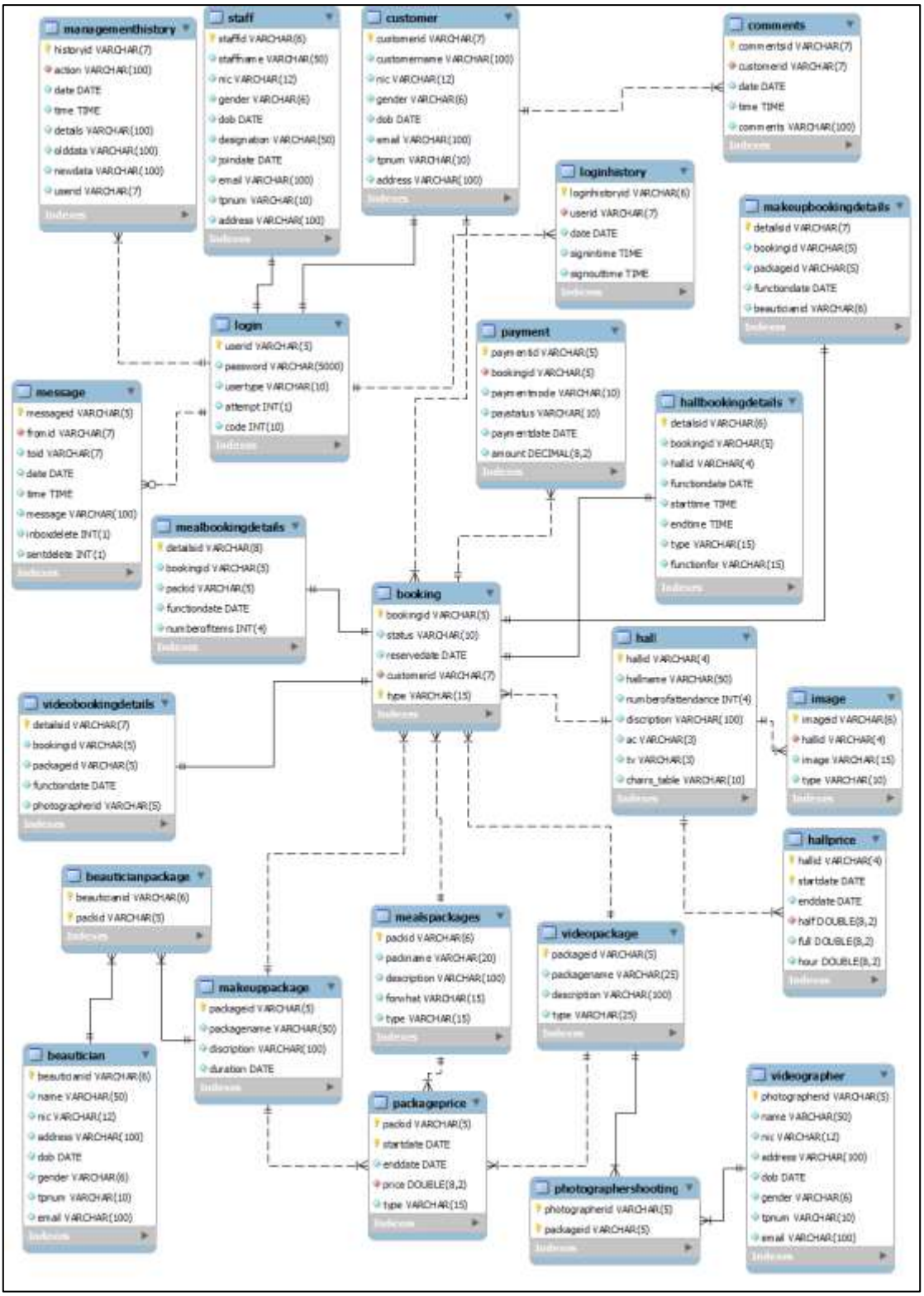


Figure 3.2 ER Diagram

3.4.2 Application and architecture design

The application and architecture design [9] of a system pertains to an abstract representation of the data flows, inputs and outputs of the system.

Use case diagram

Use case diagrams [10] are usually referred to as behavior diagrams used to describe a set of actions (use cases) that some system or systems (subject) should or can perform in collaboration with one or more external users of the system (actors). Each use case should provide some observable and valuable result to the actors or other stakeholders of the system. The following Figure 3.3 shows use case diagram for the system.

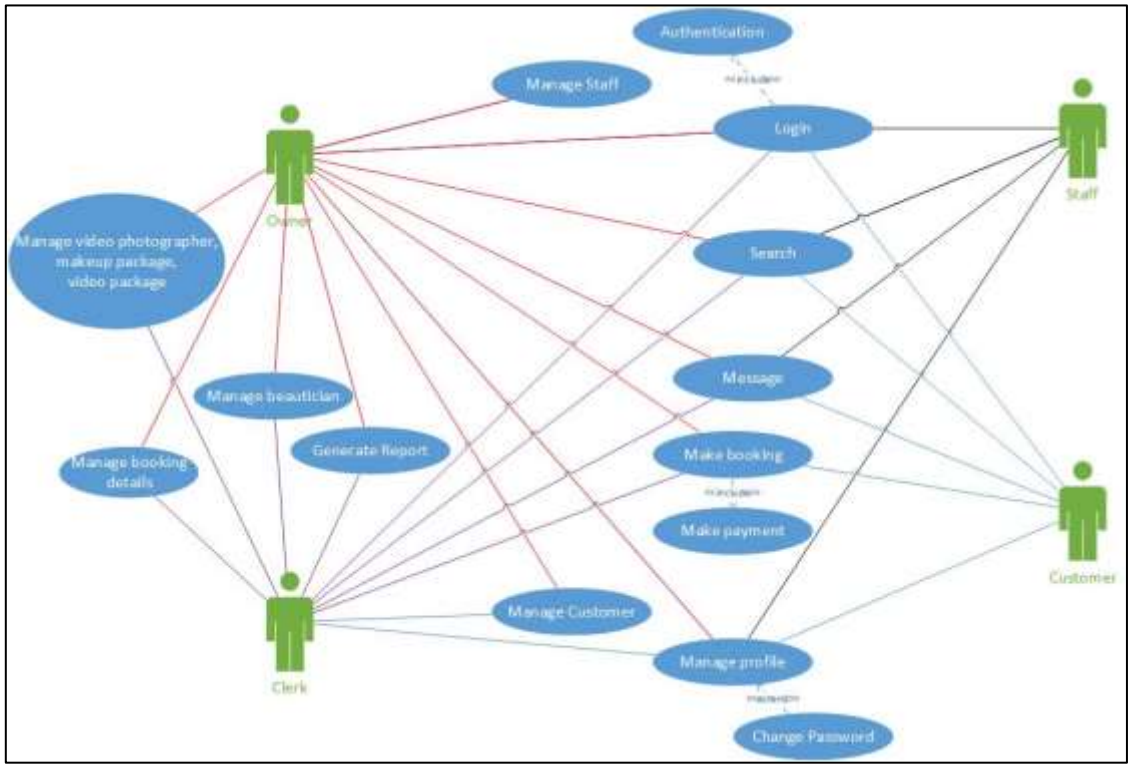


Figure 3.3 Usecase diagram for the system

Use case scenario

Use case:	Search
Actor:	Owner, Clerk, Staff and Customer
Description:	All users can search something from anywhere

Table 3.2 Search use case scenario

Use case:	Manage staff
Actor:	Owner

Description:	Owner will manage staff details like salary

Table 3.3 Manage staff use case scenario

Use case:	Login
Actor:	Owner, Clerk, Staff and Customer
Description:	It will work user name & password are correct

Table 3.4 Login use case scenario

Class diagram

In software engineering, a class diagram [11] in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects. The following Figure 3.4 shows class diagram for the system.

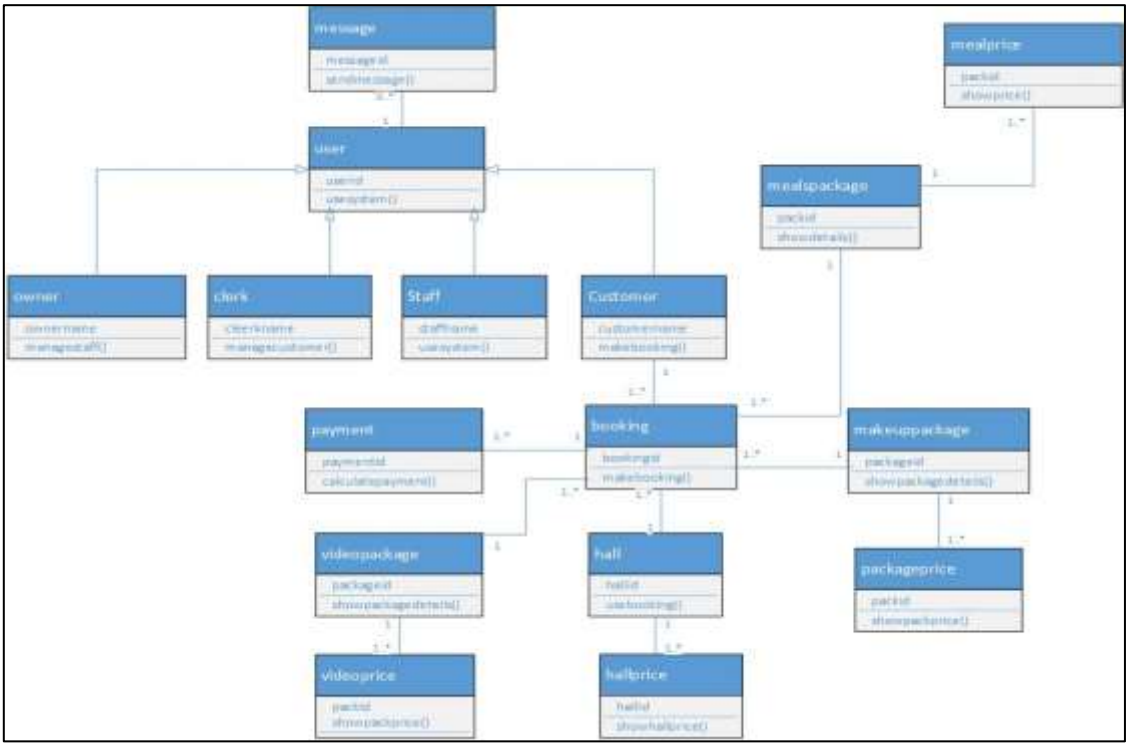


Figure 3.4 Class diagram for the system

Sequence diagram

A sequence diagram [12] is an interaction diagram that shows how objects operate with one another and in what order. A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario. Sequence diagrams are typically associated with use case realizations in the Logical View of the system under development. Sequence diagrams are sometimes called event diagrams or event scenarios. A sequence diagram shows, as parallel vertical lines (lifelines), different processes or objects that live simultaneously, and, as horizontal arrows, the messages exchanged between them, in the order in which they occur. This allows the specification of simple runtime scenarios in a graphical manner. The following Figure 3.5 shows sequence diagram for booking.

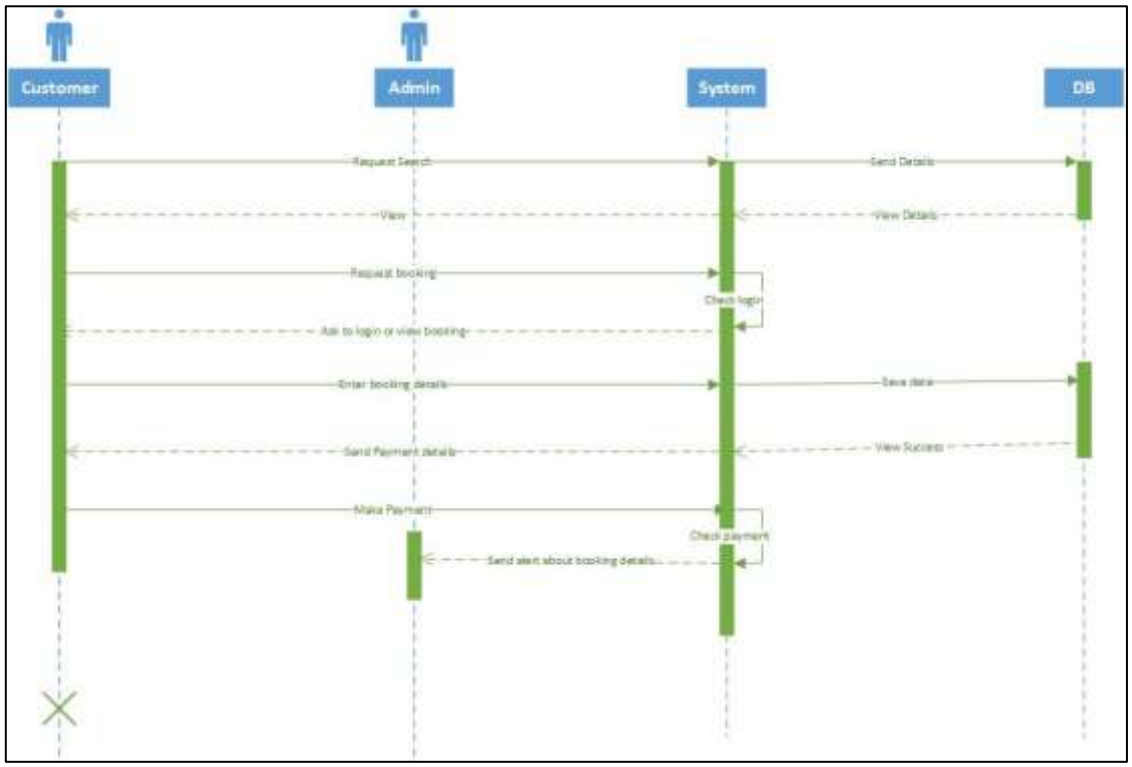


Figure 3.5 Sequence diagram for booking

Activity diagram

Activity diagram [13] is another important diagram in UML to describe the dynamic aspects of the system. Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system. The control flow is drawn from one operation to another. This flow can be sequential, branched, or concurrent. Activity diagrams deal with all type of flow control by using different elements such as fork, join, etc. The following Figure 3.6 shows activity diagram for register.

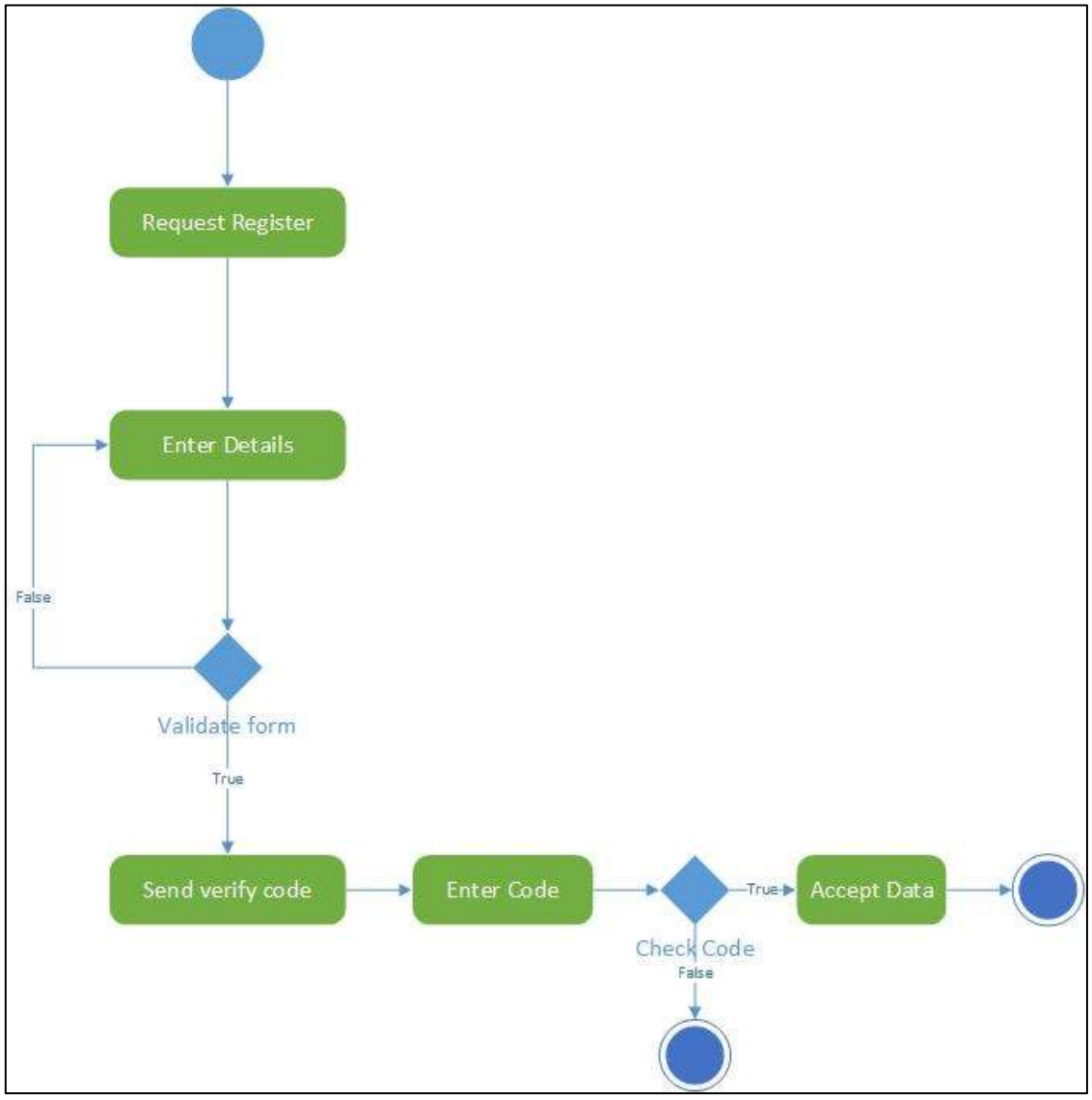


Figure 3.6 Register activity diagram

3.4.3 User interface design

This document provides a main few interface to display State wedding hall management system of Loyolas interface structure. Other interface designs are listed in Appendix.

Login interface

The Figure 3.7 shows the login page which is the initial interface of the system. This is a common user interface for all the user categories. Any authorized user can log in using their user names and valid passwords. Any errors regarding the user login will be displayed via meaningful error messages.

Figure 3.7 Login interface

Home Page

The homepage provides all the links and the menu bar to let the user to navigate easily through the system, also it shows the all hall details, facilities and galleries. The

owner’s home page is given below since he only has the permission to access all the modules. Figure 3.8 illustrates owner’s home page.

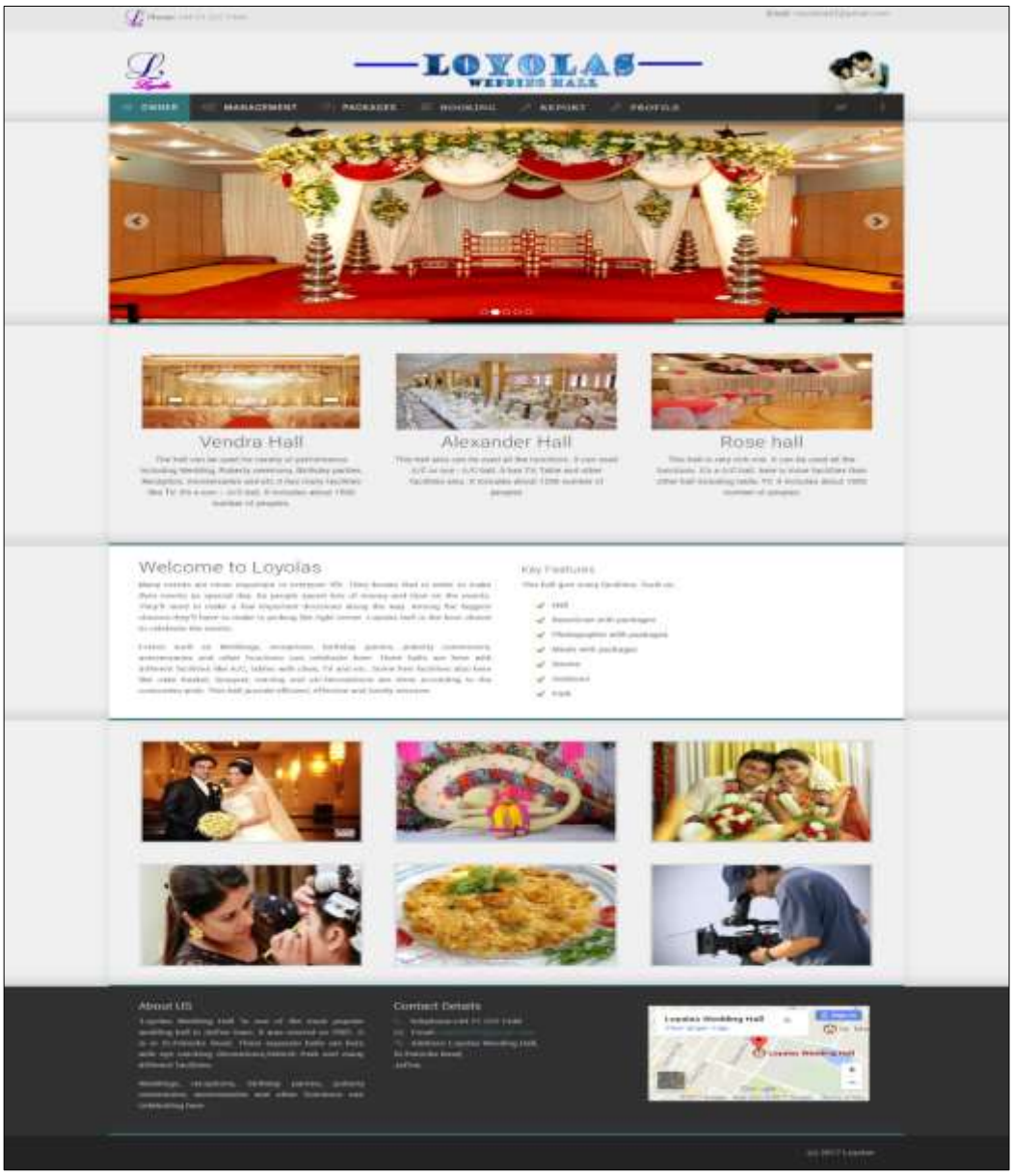


Figure 3.8 Owner’s home page

Beautician data entry form

The system has input/update forms for each module units, similar one to the beautician data entry form . This form has text, number, NIC number, email validations and Date of Birth calculation. Figure 3.9 shows beautician data entry form.

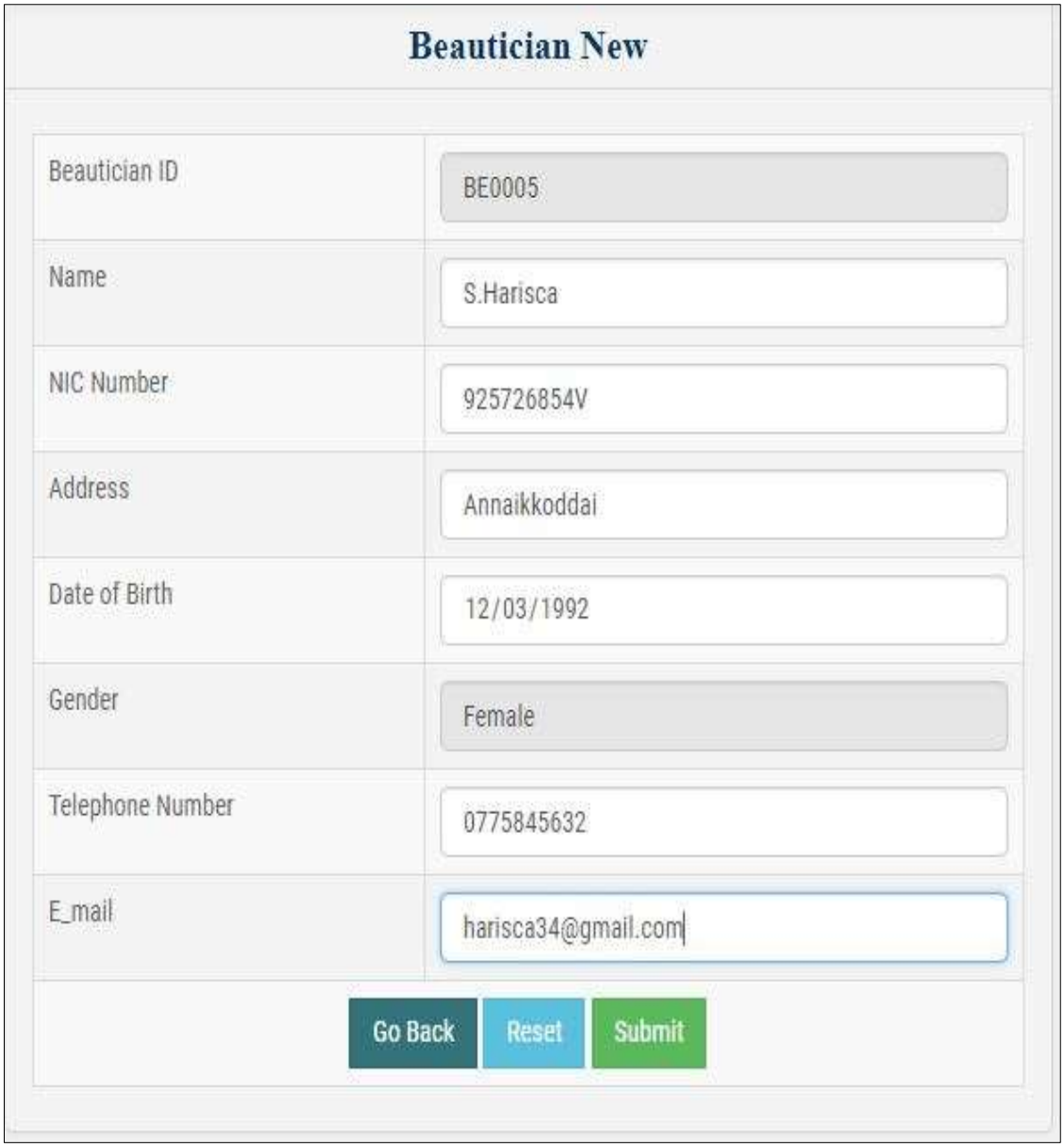


Figure 3.9 Beautician data entry form

Videographer details edit interface

Figure 3.10 shows edit interface of videographer. Here Photographer ID could not change and gender and Date of birth will be automatically changed when Change NIC number. Other details, can change as our wish. After change data then want to click Save changes button.

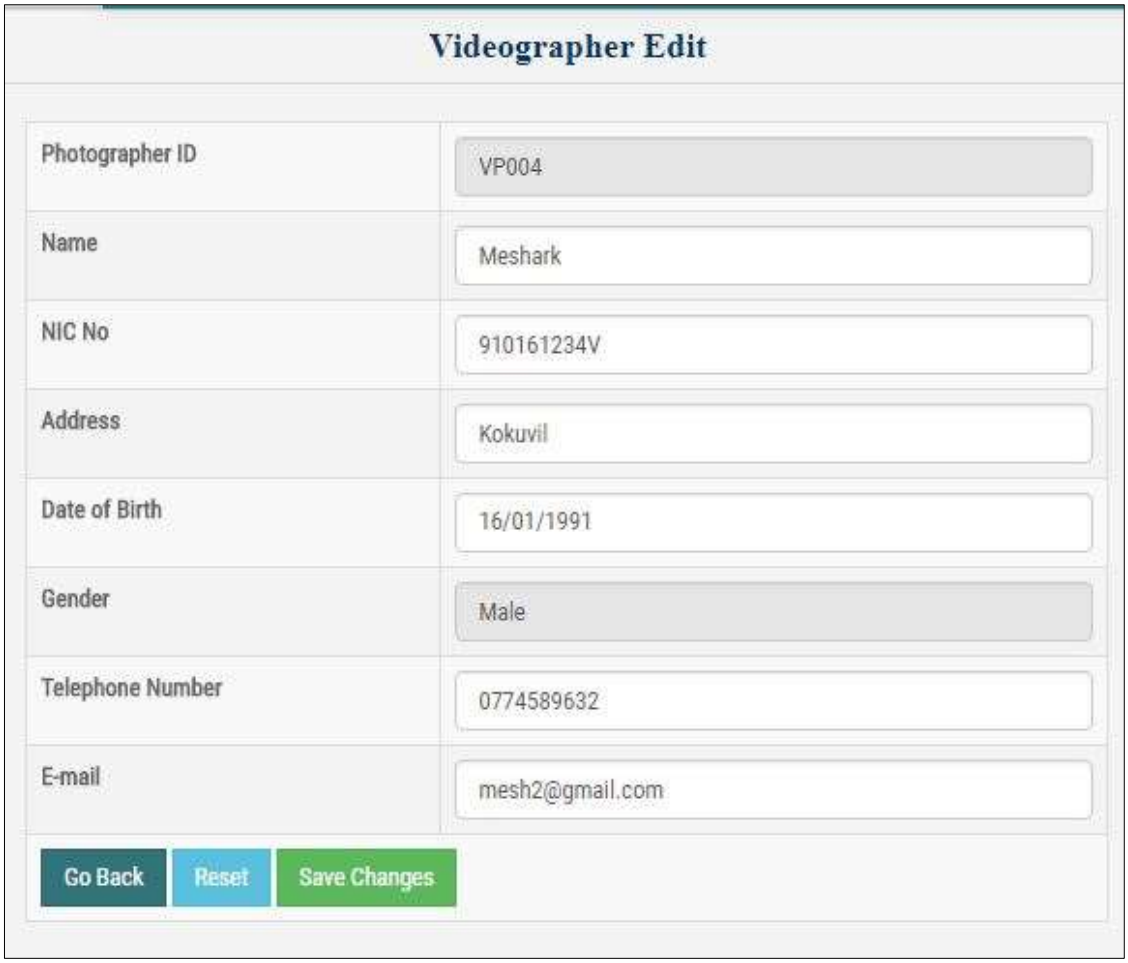


Figure 3.10 Videographer edit interface

Hall details view interface

Figure 3.11 shows all details of hall, that we have entered already in the hall data entry form. From this form, can view in full, Edit details and delete data.

Figure 3.11 Hall details view interface

Report generation

The system lets the user to filter data in a given range of dates, and view reports. Figure 3.12 shows report of staffs.

Loyolas
Wedding hall
St.Patricks Road, Jaffna

e-mail address : loyola0405@gmail.com

Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

Staff Details

Start Date	2000-01-01
End Date	2017-10-31

Staff Details

Staff Id	Staff Name	NIC Number	Gender Id	Date of Birth	Designation	Join Date	Email	Telephone Number	Address
ST0001	Loyola	722601892V	Male	1972-09-16	Owner	2000-09-01	loyola0405@gmail.com	777352055	St.Patricks road,Jaffna
ST0002	Jeni	825091234V	Female	1982-01-09	Clerk	2005-07-08	jeni05@gmail.com	775692145	Rajendra road, Jaffna
ST0003	Harry	900011234V	Male	1990-01-01	Staff	2010-11-11	harry@gmail.com	771234567	Manipay
ST0004	Paul	832304321V	Male	1983-08-17	Staff	2017-08-01	paul@gmail.com	775436101	Jaffna
ST0005	Kapil	921564789V	Male	1992-06-04	Staff	2017-08-02	kapil@gmail.com	715698524	Araly
ST0006	Nimal	197425904589	Male	1974-09-15	Staff	2014-07-06		765489521	Suthumalai, East, Suthumalai
ST0007	Malarvizhi	847601892V	Female	1984-09-16	Staff	2012-05-06	vizhimalar@gmail.com	778956231	Kalviyankaadu, Jaffna
ST0011	Arunkumar	893201479V	Male	1989-11-15	Staff	2017-01-06	sarun213@gmail.com	765896541	Main street, Jaffna
ST0012	Kalyankumar	741254783V	Male	1974-05-04	Staff	2009-08-30	kalyan54@yahoo.com	778956421	Kasthuriyar road, Jaffna
ST0013	Gajan	751475689V	Male	1975-05-26	Staff	2007-05-06	gajan23@yahoo.com	778953215	Temple road, Jaffna

Figure 3.12 Staff details report

CHAPTER 04 : IMPLEMENTATION

Implementation is the process of converting the system specification into an executable system. Design and implementation processes transform the specification (as explained in the analysis and design chapters) to an executable program, which are, most of the time interleaved.

A familiarized language and appropriate tools were chosen in the process of development and coding. The codes were written and arranged in a readable and understandable format, along with comments, hoping to produce a software that will be maintainable in the future.

4.1 Implementation environment

Some important aspects were taken into consideration when finalizing the implementation environment. When selecting the development software, most of them were free and open source which won‟t cause much trouble when getting the copyrights of the system. Some of these technologies are targeted at a specific application domain (e.g., Web-site design and implementation); others focus on a technology domain (e.g., object-oriented systems). The following components were used in the implementation environment.

Hardware	Software
♣ Pentium 4 computer or more. ♣ Basic Printer for report printing	♣ Operating System ♣ Browser ♣ Notepad++ ♣ WAMP Server 2.4 PHP 5.4.12 Apache 2.4.4 MySQL 5.6.12

Table 4.1 Implementation environment

Although this system was developed on a Windows 10 Home Premium computer. It is fully compatible with the Windows XP, Windows Vista, and Windows 8. It is also compatible with Linux systems such as Ubuntu, Fedora and Red Hat.

Other development tools

- GIMP – for create headings and image retouching.
- DoPDF– for PDF creation.
- Xara web style – For Label, button creation

Technologies

- PHP (Hypertext Pre Processor) was the main development language used to develop the main system and its logics.
- MySQL was used to handle all the development related to the database.
- XHTML was used to build the base Interfaces of the system.
- CSS was used to make the plain XHTML interfaces more attractive and user friendly, which also decided the look and feel of the system.
- JavaScript was used to code all the client-side validation.
- AJAX which is based on JavaScript was used to get data from the server without refreshing it repetitively.
- JQuery which is also based on JavaScript was used to implement the pre-coded time picker module, transition effect for the login and simple password meter.

4.2 Code and module structures

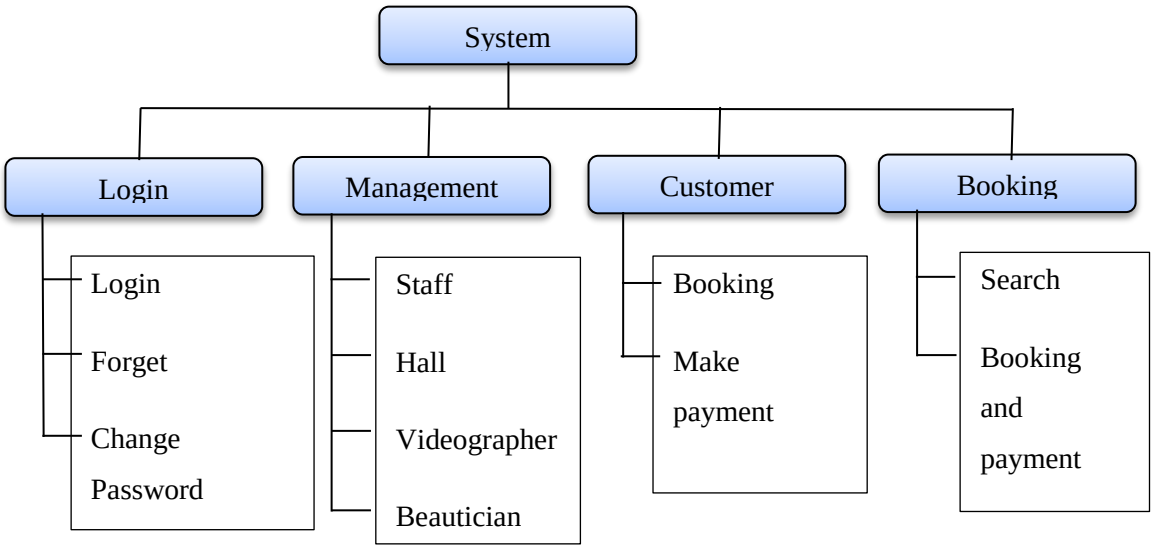


Figure 4.1 Code and Module

In this system modules are divided into four major categories such as login, management, customer and booking.

Login

Login module allow the user in this system if user name and password are correct, if isn't it will not allow to the system. If anyone forgot their password, then they can use the forgot password option, it leads to the recover option. Through this they can get their password from mobile phone. When enter personal data NIC number sets as default password, if anyone wants to change their password, then they can select change password option.

Management

Management is another module of this system. It includes staff management, Hall management, Videographer management and beautician management. It considers enter, edit and delete staff, hall, videographer and beautician details. These can manage only owner and clerk.

Customer

Customer can register their details and make booking hall, videographer, beautician and meals from various selection of option. They can get the prices, images and other details of hall, videographer, beautician and meals from this system and can make payments through online.

Booking

Customers can access this system through their username and password and can get information through searching. And make booking as their wish. They want to pay advance first. If they want to confirm or cancel their booking, they want to inform before one week.

4.3 Reuse existing codes

Habitat [14] is free web template that available in web for free, anyone can download from web for free charge. This template only used for table, form and user interface design of this system.

4.4 List of coding

Data base connection coding

```
<?php
$con=mysql_connect("localhost","root","");
  if(!$con)
    {
    die("Server connection error");
    }
$db=mysql_select_db("loyolas");
  if(!$db)
    {
    die("Database error");
    }
?>
```

In this coding mysql_connect used to connect with server and mysql_select_db is used to connect with database in that server.

Login coding

```
if (!isset($_SESSION))
{
  session_start();
}
date_default_timezone_set("Asia/Colombo");
include("connection.php");
if(isset($_POST["btnsubmit"]))
{
  $enterusername=$_POST["txtusername"];
  $enterpassword=$_POST["txtpassword"];
  $sqlusername="SELECT * FROM login WHERE userid='$enterusername'";
  $resultusername=mysql_query($sqlusername) or die("sql error in
sqlusername".mysql_error());
  if(mysql_num_rows($resultusername)>0)
  {
    $sqlpassword="SELECT * FROM login WHERE userid='$enterusername' AND
password='$enterpassword'";
```

```
        $resultpassword=mysql_query($sqlpassword) or die("sql error in
sqlpassword".mysql_error());
        $rowusername=mysql_fetch_assoc($resultusername);
        if(mysql_num_rows($resultpassword)>0)
        {
            $_SESSION["username"]=$enterusername;
            $_SESSION["usertype"]=$rowusername["usertype"];
            $sqlupdate="UPDATE login SET attempt=0 WHERE userid='$enterusername'";
            $resultupdate=mysql_query($sqlupdate) or die ("sql error in
sqlupdate".mysql_error());
            $sqlloginhistoryid="SELECT loginhistoryid FROM loginhistory ORDER BY
loginhistoryid DESC";
            $resultloginhistoryid=mysql_query($sqlloginhistoryid) or die("sql error in
sqlloginhistoryid ".mysql_error());
            if(mysql_num_rows($resultloginhistoryid)>0)
            {
                $rowloginhistoryid=mysql_fetch_assoc($resultloginhistoryid);
                $loginhistoryid=++$rowloginhistoryid["loginhistoryid"];
            }
            else
            {
               $loginhistoryid="LH0001";
            }
            $sqlinsertloginhistory="Insert into loginhistory
            (loginhistoryid,userid,date,signintime)
            values('".$loginhistoryid."','".$enterusername."','".date("Y-m-d")."','".date("H:i:s")."')";
            $resultinsertloginhistory=mysql_query($sqlinsertloginhistory) or die("sql error in
sqlinsertloginhistory ".mysql_error());
            header('location:index.php');
        }
        else if($rowusername["attempt"]<3)
        {
            echo'<script> alert ("your password is wrong");</script>';
            $sqlupdate="UPDATE login SET attempt=attempt+1 WHERE
userid='$enterusername'";
            $resultupdate=mysql_query($sqlupdate) or die ("sql error in
sqlupdate".mysql_error());
```

```
        }
        else
        {
            echo'<script> alert("You attempt more than three times. Please go to recover option to reset");

windows.location.href="index.php?pg=forget.php&forgetusername='.$enterusername.'";
            </script>';
        }
    }
    else
    {
        echo'<script> alert("Your username invalid");</script>';
    }
}
```

The system will allow the user, if the user name and password are correct. It will allow to type error password only three times. If isn't it will send to recovery option.

NIC validation coding

```
function nicnumber()
{
    var nic=document.getElementById("txtnic").value;
    if(nic.length==10)
    {
        var nicformat1=/^[0-9]{9}[a-zA-Z0-9]{1}$/;
        if(nic.match(nicformat1))
        {
            var nicformat2=/^[0-9]{9}[vVxX]{1}$/;
            if(nic.match(nicformat2))
            {
                calculatedob(nic);
            }
            else
            {
                alert("last character must be V/v/X/x");
                document.getElementById("txtnic").value="";
                document.getElementById("txtnic").focus();
```

```
            if(page=="customer" || page=="register")
            {
                document.getElementById("txtdateofbirth").value="";
            }
            else
            {
                document.getElementById("txtdate").value="";
            }
        }
    }
    else
    {
        alert("First 9 characters must be numbers");
        document.getElementById("txtnic").value="";
        document.getElementById("txtnic").focus();
        if(page=="customer" || page=="register")
            {
                document.getElementById("txtdateofbirth").value="";
            }
            else
            {
                document.getElementById("txtdate").value="";
            }
    }
  }
  else if(nic.length==12)
  {

    var nicformat3=/^[0-9]{12}$/;
    if(nic.match(nicformat3))
        {
            calculatedob(nic);
        }
        else
        {
            alert("All 12 characters must be number");
            document.getElementById("txtnic").value="";
```

```
            document.getElementById("txtnic").focus();
            if(page=="customer" || page=="register")
            {
                document.getElementById("txtdateofbirth").value="";
            }
            else
            {
                document.getElementById("txtdate").value="";
            }
        }
    }
    else if(nic.length==0)
    {

    }
    else
    {
        alert("NIC No must be 10 or 12 Characters");
        document.getElementById("txtnic").value="";
        document.getElementById("txtnic").focus();
        if(page=="customer" || page=="register")
            {
                document.getElementById("txtdateofbirth").value="";
            }
            else
            {
                document.getElementById("txtdate").value="";
            }
    }
}
```

This validation will check 10 digits NIC number and 12 digits NIC number. If it is 10 digits NIC, then it will check first 9 digits want to come in numbers and last one want to come letter ‘V’ or ‘X’. If is it 12 digits number, then all the digits want to come in numbers. If any error occur, then error alert will show with meaning full message.

4.5 Security

- Each type user's access is restricted according to their role. Only the Administrator has full privileges to do modifications in the system. The system verifies the user in every controller. If the users name and password ok then can access, if isn't it'll not allowed.

- The system will send alert, when error occur.

- The system has forgot password facility, if any one forgot their password, then the system will help from recovery option. It will send their password through mobile phone.

- When the customer registering, it will register only the verification code is correct. This verification code will send via customer's mobile phone.

CHAPTER 05 : EVALUATION

The system evaluation [15] "evaluation of performance, from the perspectives of both developers and users, of complex systems of hardware and software. Modern computer-based information systems have become increasingly complex because of networking, distributed computing, distributed and heterogeneous databases, and the need to store large quantities of data. People are relying increasingly on computer systems to support daily activities. When these systems fail, significant breakdowns may ensue"

Therefore, in order to prevent these kinds of unnecessary failures, a good system evaluation and testing has to be introduced.

5.1 Test Plan

A proper system testing should be carried out for evaluating the system to see its compatibility as a solution for the problem domain. It is a kind of investigation process for a newly developed system which will find out and provide information about the quality of the system to the stake holders. The test results help a developer to identify and minimize errors (software bugs) which may arise from the actual working environment of the system. A Testing has been done to the Wedding hall management system according to a test plan.

The test Plan of the Wedding Hall Management System describes the testing strategies and the approaches to testing. Quality assurance will be used to validate the quality of this system prior to its using in the real environment. It also contains various resources required for the successful completion of this project.

5.1.1 Unit Testing

In computer programming, unit testing [16] is a software testing method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use.

5.1.2 Integration Testing

An integration testing has been done in order to test the modules (integration of units of code) of the system. This is essential when using different kinds of implementing

technologies together. It ensures that all the integrated components are working cooperatively for the desired outcome.

5.1.3 System Testing

After the completion of unit and integration testing the whole system has been tested properly. The system testing guarantees the standard of the system. A system testing [17] was conducted using a similar environment where the system will be practically used.

5.1.4 User acceptance Testing

In software development, user acceptance testing [18] - also called beta testing, application testing, and end user testing - is a phase of software development in which the software is tested in the "real world" by the intended audience. UAT can be done by in-house testing in which volunteers or paid test subjects use the software or, more typically for widely-distributed software, by making the test version available for downloading and free trial over the Web. The experiences of the early users are forwarded back to the developers who make final changes before releasing the software commercially. In this system the test done by the stakeholders.

Further the test plan includes two levels for implementing the “Black box” and “White box” testing methods. The Black box testing [19] focuses on the functions and behaviours of the system. This testing does not need any knowledge on the internal structure of the system. The White box testing [20] focuses the internal structure and logics of the system. This is a code level testing method and any malfunctioning units can be easily detected.

5.2 Test Results

The most important contents of any test plan are the test cases. Generally test cases include the test case title, expected results, actual results and the test case. In order to minimize the complexity, the whole system has been divided in to several modules, and each module was tested separately.

The tables 5.1 to 5.5 show a few of the test cases used to conduct testing. The rest of the test cases can be found in Appendix E– Test Results.

5.2.1 Login Module

No	Test	Expected Results	Actual Results	Test Case
01	Unauthorized login	The system will not allow the user to login and it show on error message.	The system didn't allow the user and displayed error message.	Pass
02	Login with wrong user id or password	The system will display error message and allow only three time with wrong password if try more than three attempt with wrong password automatically go to forget password page.	The system displayed appropriate error message and allowed only three time to login with wrong password and if tried more than three time with wrong password system automatically displayed forget password page	Pass
03	Login with correct user id and password	Display appropriate user interface based on user type	The system displayed appropriate user interface based on user type	Pass
04	Forget password	Get user id and registered hand phone number and check the hand phone number correct or not, if the hand phone number is wrong, the system display error message. If the hand phone number is correct, the system send verification code to hand phone. After get the code, check the code and if it is wrong, system will display error message and if the code is correct, send	The system checked the phone number and verification code. If anything wrong, it displayed error message. If They correct, the system sent verification code and sent correct password to hand phone number.	Pass

		password to the hand phone number		
05	Change Password	Allow to change password when correct current password is typed. New password and confirm new password want to same. If is not want to display error message.	System allowed to change password when Entered correct current password. And system allowed new password and confirm new password are same. Otherwise it displayed error message.	Pass
06	Logout	If user click logout button, then the system destroy all session details and display index page. After logout if user click back button in browser then system not allow to go back, it only stay in index page	The system destroyed all session details when click logout and didn't allow to user to go back when click back button in browser after user made logout	Pass

Table 5.1 Login Module

5.2.2 Management Module

No	Test	Expected Results	Actual Results	Test Case
01	Add new staff	Owner and clerk only allow to add new staff.	The system allowed only owner and clerk to add staff.	Pass
02	Add new beautician	Owner and clerk only allow to add new beautician.	The system allowed only owner and clerk to add beautician.	Pass
03	Add new hall	Owner and clerk only allow to add new hall.	The system allowed only owner and clerk to add hall.	Pass
04	Add new videographer	Owner and clerk only allow to add new videograper.	The system allowed only owner and clerk to add videographer.	Pass
05	Add new	Owner and clerk only allow	The system allowed	

	packages	to add new package.	only owner and clerk to add package.	Pass
06	Add new prices	Owner and clerk only allow to add new price.	The system allowed only owner and clerk to add price.	Pass
07	Edit staffs, beauticians, halls, videographers, packages and prices.	Owner and clerk only allow to edit staff details.	The system allowed only owner and clerk to edit staff details.	Pass
07	Delete staffs, beauticians, halls, videographers, packages and prices details.	Owner and clerk only allow to delete staff , beauticians, halls, videographers, packages and prices details.	The system allowed only owner and clerk to delete staff , beauticians, halls, videographers, packages and prices details.	Pass
08	View staffs, details.	Owner and clerk allow to view all staff details ,but staffs can only view their own details.	The system allowed only Owner and clerk to view all staff details ,but staffs can only view their own details.	Pass
09	Salary Management	Owner and clerk allow to enter, edit, delete and view all staff salary details. Staff can only view their own salary details.	The system allowed only Owner and clerk to enter, edit, delete and view all staff salary details. Staff could only view their own salary details.	Pass
10	Payment Management	Owner and clerk allow to manage payment	The system allowed owner and clerk to manage payment.	Pass
11	Generate management history	Only owner allow to generate management history.	The system allowed only owner to generate management history	Pass

12	Generate login history	Only owner allow to generate login history.	The system allowed only owner to generate login history	Pass
13	Generate staff, beauticians, halls, videographers, packages and prices reports	Only owner and clerk allow to generate staff, beauticians, halls, videographers, packages and prices reports	The system allowed only owner and clerk allow to generate staff, beauticians, halls, videographers, packages and prices reports.	Pass
14	Generate Packages details report	Owner and clerk only generate packages details report.	The system allowed only owner and clerk to generate package details report.	Pass
15	Generate booking details report	Owner and clerk only generate booking details report.	The system allowed only owner and clerk to generate booking details report.	Pass
16	Generate salary details report	Owner and clerk only generate salary details report.	The system allowed only owner and clerk to generate salary details report.	Pass
17	Generate payment details report	Owner and clerk only generate payment details report.	The system allowed only owner and clerk to generate payment details report.	Pass
18	Generate customer details report	Owner and clerk only generate customer details report.	The system allowed only owner and clerk to generate customer details report.	Pass
19	Messaging	Owner and clerk should be able to send, receive and delete messages	The system allowed owner and clerk to send, receive and delete messages	Pass
20	Print report	Owner and clerk should be able to print reports.	The system allowed them to print reports.	Pass

Table 5.2 Management Module

5.2.3 Customer Module

No	Test	Expected Results	Actual Results	Test Case
01	View beauticians, halls, videographers, packages and prices details.	Customer able to view details of beauticians, halls, videographers, packages and prices	The system allowed to customer to view those details	Pass
02	Select one from different selections	Customers able to select one of the beauticians, halls, videographers, packages in different selections through drop down list.	The system allowed the customers to select one from drop down list.	Pass
03	Make booking	Customers able to make booking halls, beauticians, videographers and packages as their wish.	The system allowed the customers to make booking halls, beauticians, videographers and packages as their wish.	Pass
04	Change profile	Customer able to change their own profile.	The system allowed customers to change their own profile	Pass
05	Make payment	Customers able to make their payment through online.	The system allowed the customer to make their payments through online	Pass
06	Send message	Customers able to send messages to administration.	The system allowed them to send message.	Pass
07	Comments	Customers able to send, receive comments and can delete their own messages.	The system allowed them to send, receive comments and can delete their own messages.	Pass
08	Register	Customer able to register in the system and able to get their password and user ID	The system allowed them to register and login in the system.	Pass

		then they can login in the system.		

Table 5.3 Customer Module

5.2.4 Booking Module

No	Test	Expected Results	Actual Results	Test Case
01	Hall booking	Customer should be able to make booking a hall from various halls according to facilities and price.	The system allowed to them to see details and select one of them.	Pass
02	Beautician booking	Customer should be able to make booking a beautician from many beauticians according to make up packages and their price.	The system allowed to them to see details and select one of them.	Pass
03	Videographer booking	Customer should be able to make booking a videographer from many videographers according to video packages and their price.	The system allowed to them to see details and select one of them.	Pass
04	Meal booking	Customer should be able to make booking a meal package from many meal packages according to their meal types and price.	The system allowed to them to see details and select one of them.	Pass
05	View booking details	Owner and clerk should be able to view all booking details.	The system allowed them to view	Pass
06	Report generation of booking	Owner and clerk should be able to generate reports of booking details.	The system allowed them to generate booking report.	Pass

Table 5.4 Booking Module

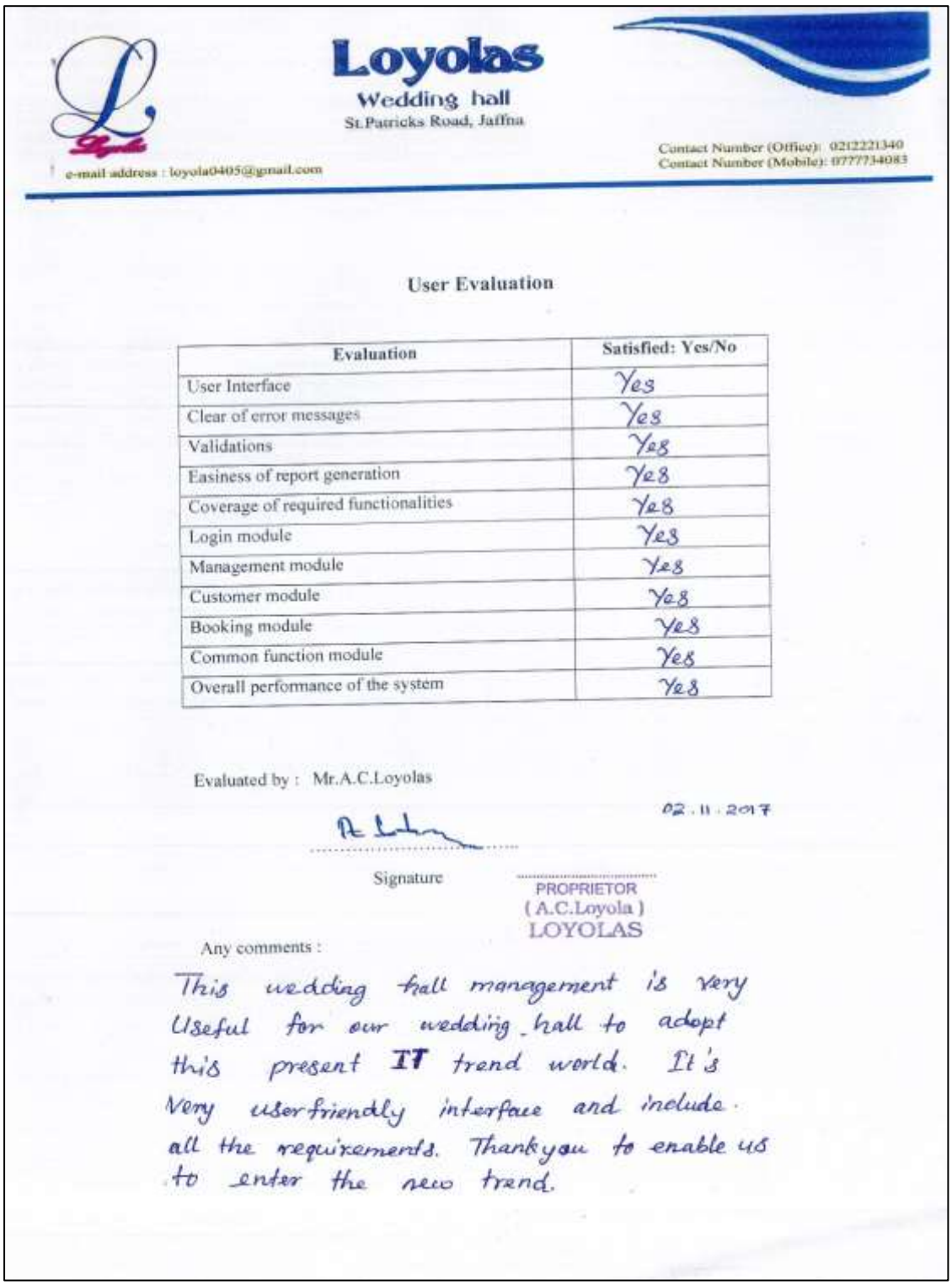
5.2.5 Test cases for common functions

No	Test	Expected Results	Actual Results	Test Case
01	Database connection	The system want to connect with database.	The system connect with database successfully.	Pass
02	Form validation	If enter wrong input, the system want to display error message.	The system displayed error message when enter wrong input.	Pass
03	Browser supporting	The system should be able to support all browser.	The system supported all the browsers	Pass
04	Operating system supporting	The system should be able to support all windows version and other OS.	The system supported all the OS	Pass
05	Try to access restricted files	System should ask appropriate login credentials	System asked appropriate login credentials	Pass
06	Access menu and toolbars.	System should be display customized dropdown menus and toolbars.	The system displayed customized dropdown menus and toolbars.	Pass
07	Session Timeout	Idle for nine hundred seconds	Display session timeout error and redirect to login page	Pass

Table 5.5 Test Cases for Common Functions

5.3 User Evaluation

User evaluation is done by proprietor of loyolas that is shown in the following Figure 5.1:



Loyolas
Wedding hall
St.Patricks Road, Jaffna
e-mail address : loyola0405@gmail.com
Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

User Evaluation

Evaluation	Satisfied: Yes/No
User Interface	Yes
Clear of error messages	Yes
Validations	Yes
Easiness of report generation	Yes
Coverage of required functionalities	Yes
Login module	Yes
Management module	Yes
Customer module	Yes
Booking module	Yes
Common function module	Yes
Overall performance of the system	Yes

Evaluated by : Mr.A.C.Loyolas

02.11.2017

Signature

PROPRIETOR
(A.C.Loyola)
LOYOLAS

Any comments :

This wedding hall management is very Useful for our wedding hall to adopt this present IT trend world. It's Very userfriendly interface and include all the requirements. Thankyou to enable us to enter the new trend.

Figure 5.1 User Evaluation

Users Acceptance Chart

The system was tested by different types of users and got feedback from them. The user evaluation chart is shown in the following Figure 5.2. Different type of users login and access the system and test all the modules based on user privilege and got feedback and generate user evaluation chart based on feedback.

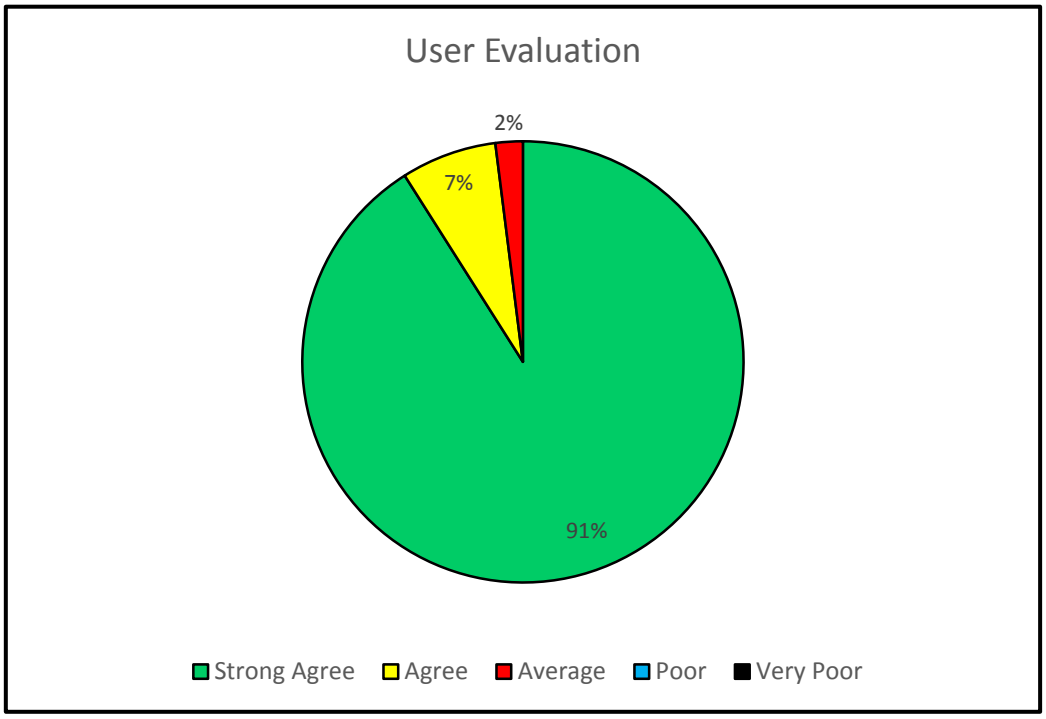


Figure 5.2 User evaluation chart

CHAPTER 06 : CONCLUSION

6.1 Introduction

On the journey of development of the project each work has been tested on the client basis. To make sure that all the client's requirements were completed successfully without compromising anything.

Functional and Nonfunctional requirements were reviewed on the analysis phase and check back each requirements with the functionalities implemented in the system. It can be said all requirements of the client have been satisfied. The simple and intuitive user interface that was designed and developed, was easy to learn and use proved to be satisfactory for the user.

An efficient and effective system to Loyalas Wedding Hall, Jaffna to handle the day-to-day activities such as hall, meals, beauticians, decoration, photography, packages and etc., as well as manage their staff details, salary details, booking details, payment details and etc. as worldwide business and generating the report as easy.

The system was built using the following technologies Object oriented, HTML, CSS, PHP, JavaScript, and MySQL.

6.2 Lesson learnt

This developed system does not merely fulfill the requirement of the final year of the Degree program; however it assists me to practically apply the knowledge learnt throughout the past three years.

When assigning the project proposal, I did not have much of an idea on how to carry out the project. When progressing through step by step according to the guideline provided by the university, I gained a valuable knowledge on how to do a successful professional system development project. By doing the development process according to a schedule, I learnt how to do my day-to-day activities by managing time efficiently.

The implementation phase was the toughest and most interesting phase of the project, as it allowed me to try out practically the academic knowledge that I have gained on

programming languages such as PHP, Java Scripts, CSS and many more development tools and techniques.

Writing the dissertation was another interesting task of the project. It provided me with lessons on how to write a report in a professional manner. It helped me to develop my skills on writing and designing technical reports.

6.3 Critical assignment of project

This system has many objectives. It allows the user or member to perform service enquiry including service booking, service availability status, service details...etc. and it provided the user to register in order to be a member of the website. User is then granted privileges to book or cancels services. The management can able to manage their details and prices of hall, beautician packages, meals packages, decoration, photography and etc. The customers can search hall, beautician and their packages, meals packages, decoration style, catering service, Photography and packages etc. as their wish. And they can able to find the details of price, search free dates for booking and make their booking , can able to reserve hall and other facilities through this system. The management can able to get reports in various categories such as day or month or year wise. The system facilitate to send alert messages to customer through system. The system calculate the bill automatically and print the bill. This is a cost effective system, because the application can be used in a computer with low memory and low processing power. It is a graphical user interface and user friendly system, so owner and customers can work with easily and also it reduces time for training. All above the objectives has completed.

6.4 Future work

- Online-customer profile can be developed furthermore to do payments online.
- Add more effective bar charts and pie charts in report generation module to support top management in decision making.
- Include encryption method
- Obtain SSL certificates to ensure secure transaction.
- Improve the security by using cryptographic methods while storing the passwords

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APPENDIX

Appendix A – System Documentation

Wamp server installation and database upload method

Step 1: Double click on WampServer 2.4 setup file and follow the instruction.

Figure A.1 Setup wizard

Step 2: After follow some instruction, then agreement window will show and select 'I agree the agreement' option, then click next button.

Figure A.2 Agreement window

Step 3: Click on the Browse button and select the installation location of Wamp Server

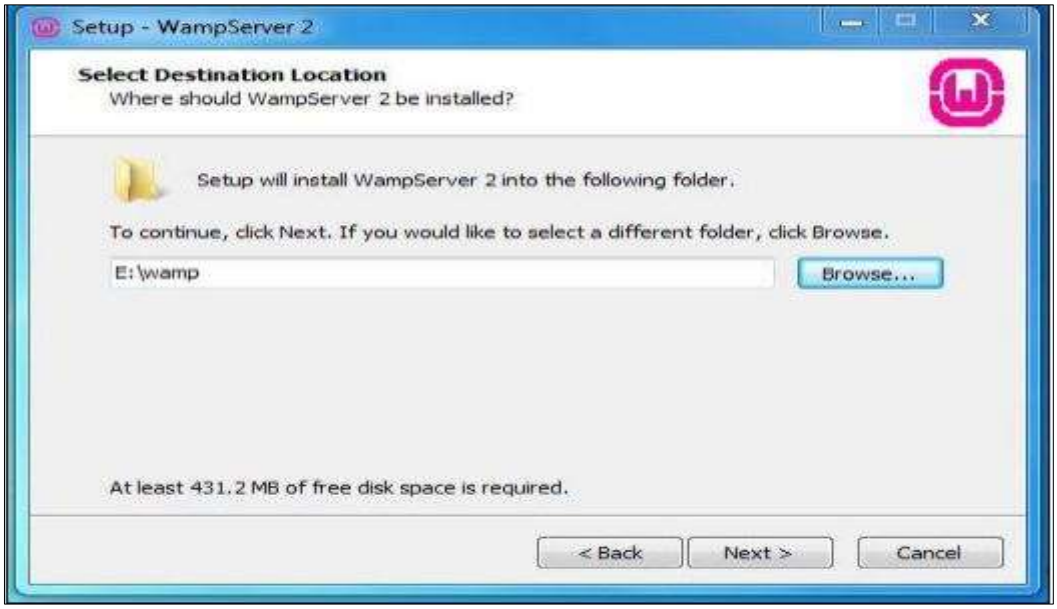


Figure A.3 Folder location

Step 4: Click Install button and It will install the programme and finish automatically.

Figure A.4 Installation window

Step 5: After Install the wamp server, start the Wamp Sever. When start the wamp server, it visible in green color in the task bar. After that, go to browser and type "localhost" or "127.0.0.1" in the address bar.

Figure A.5 Wamp server icon in task bar

Step 6: In the browser, the following window will be show, then click phpmyadmin link

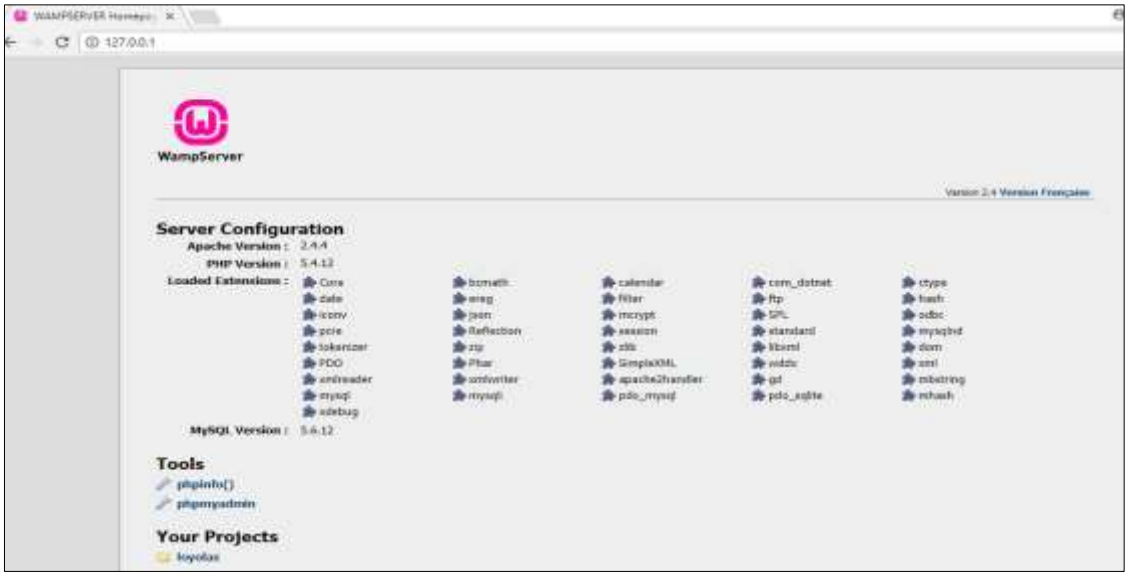


Figure A.6 Index page of wamp server

Step 7: After that, type "root" in user name text box field and keep blank in password text box field. And click go button.

Figure A.7 welcome page

Step 8: After login, click Import tab and click browse and select the database file loyolas.sql file from CD and click go button. Now the database successfully uploaded.

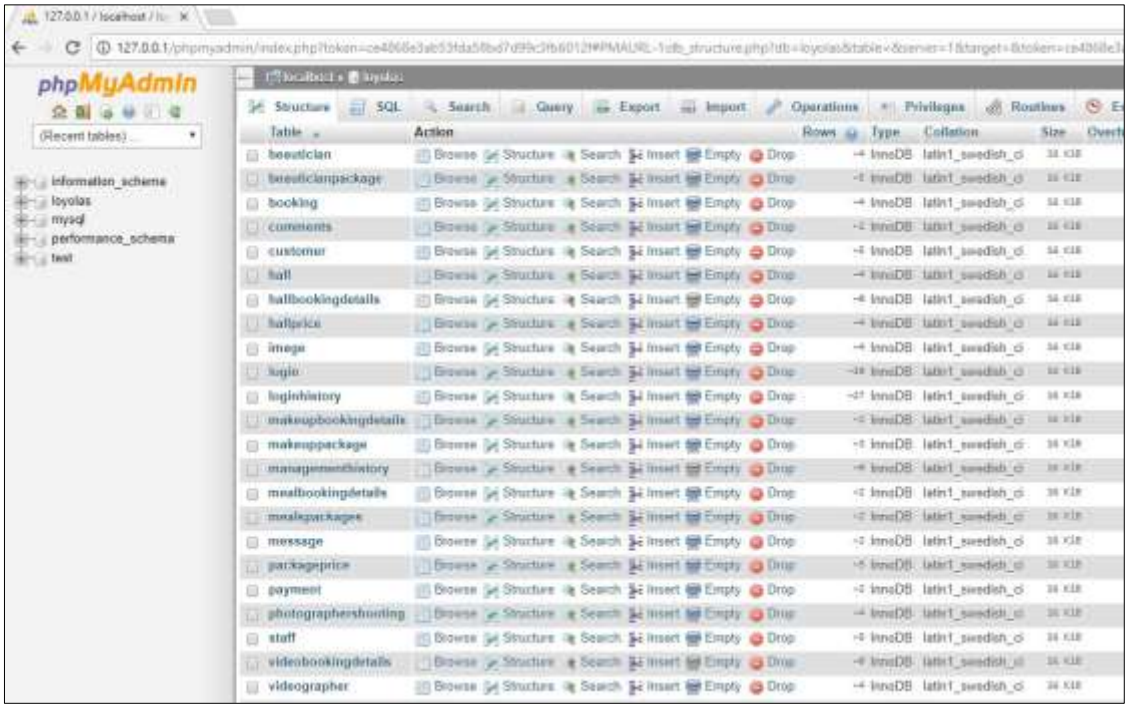


Figure A.8 Database Tables

Step 9: For those process, ‘www’ folder will be created automatically in the wamp. All the PHP files are saved in this www folder.

Appendix B – Design Documentation

The following Figure B.1 shows activity diagram for booking.

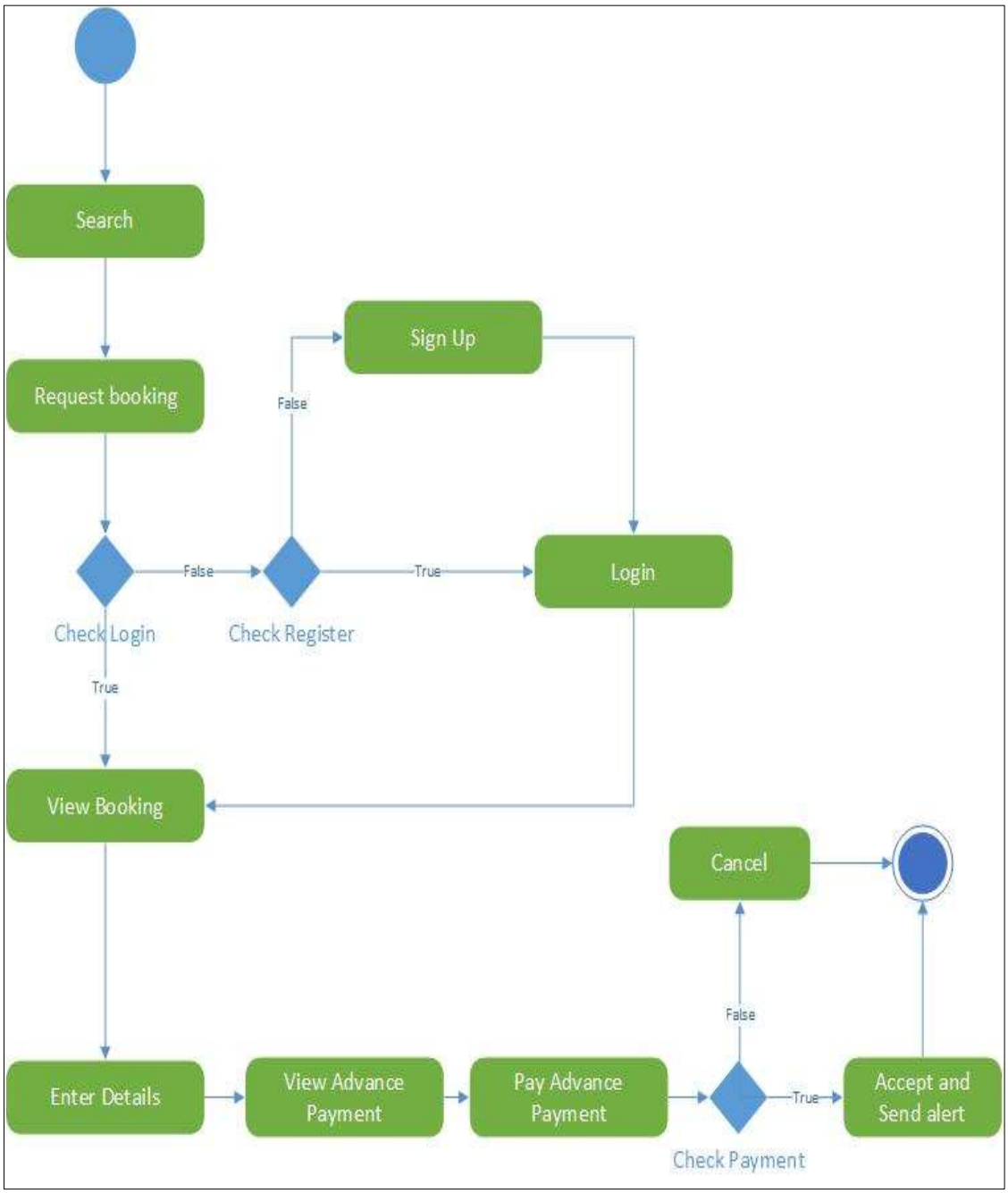


Figure B.1 Activity diagram for booking

The following Figure B.2 shows activity diagram for login

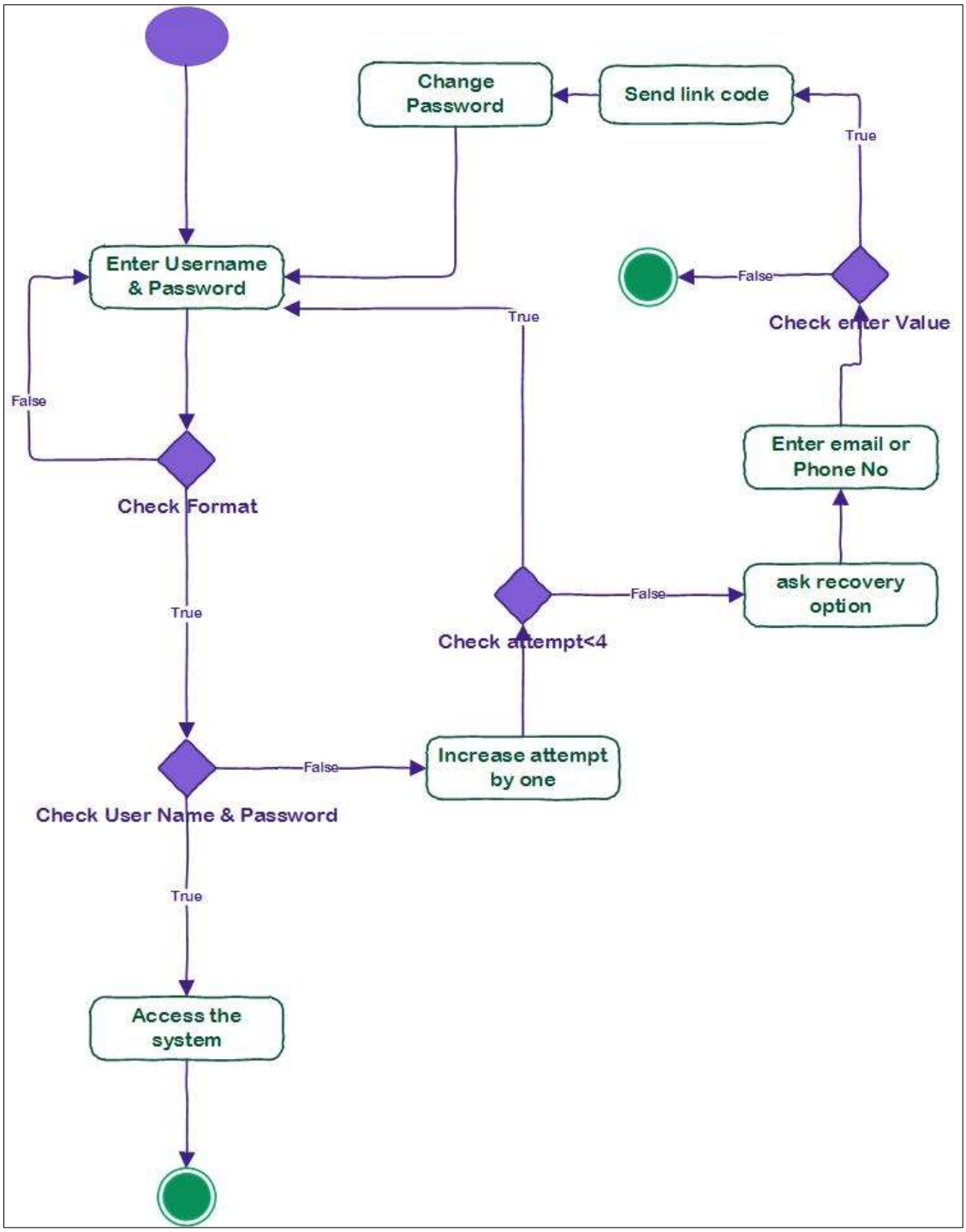


Figure B.2 Activity diagram for login

The following Figure B.3 shows activity diagram for report generation.

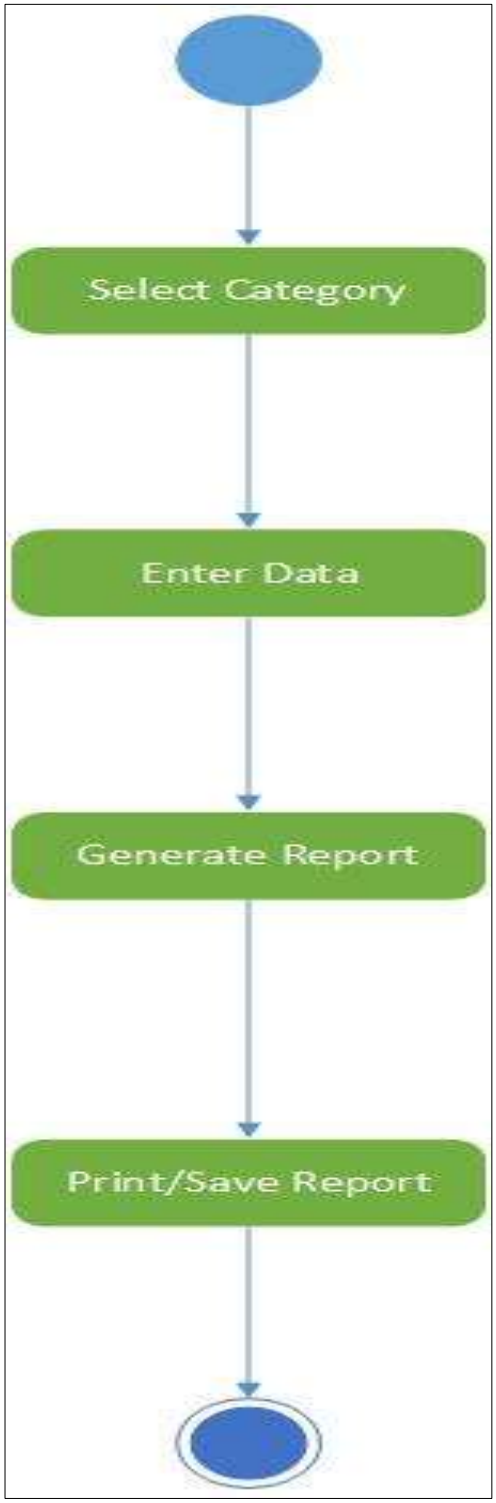


Figure B.3 Activity diagram for report generation

The following Figure B.4 shows sequence diagram for login

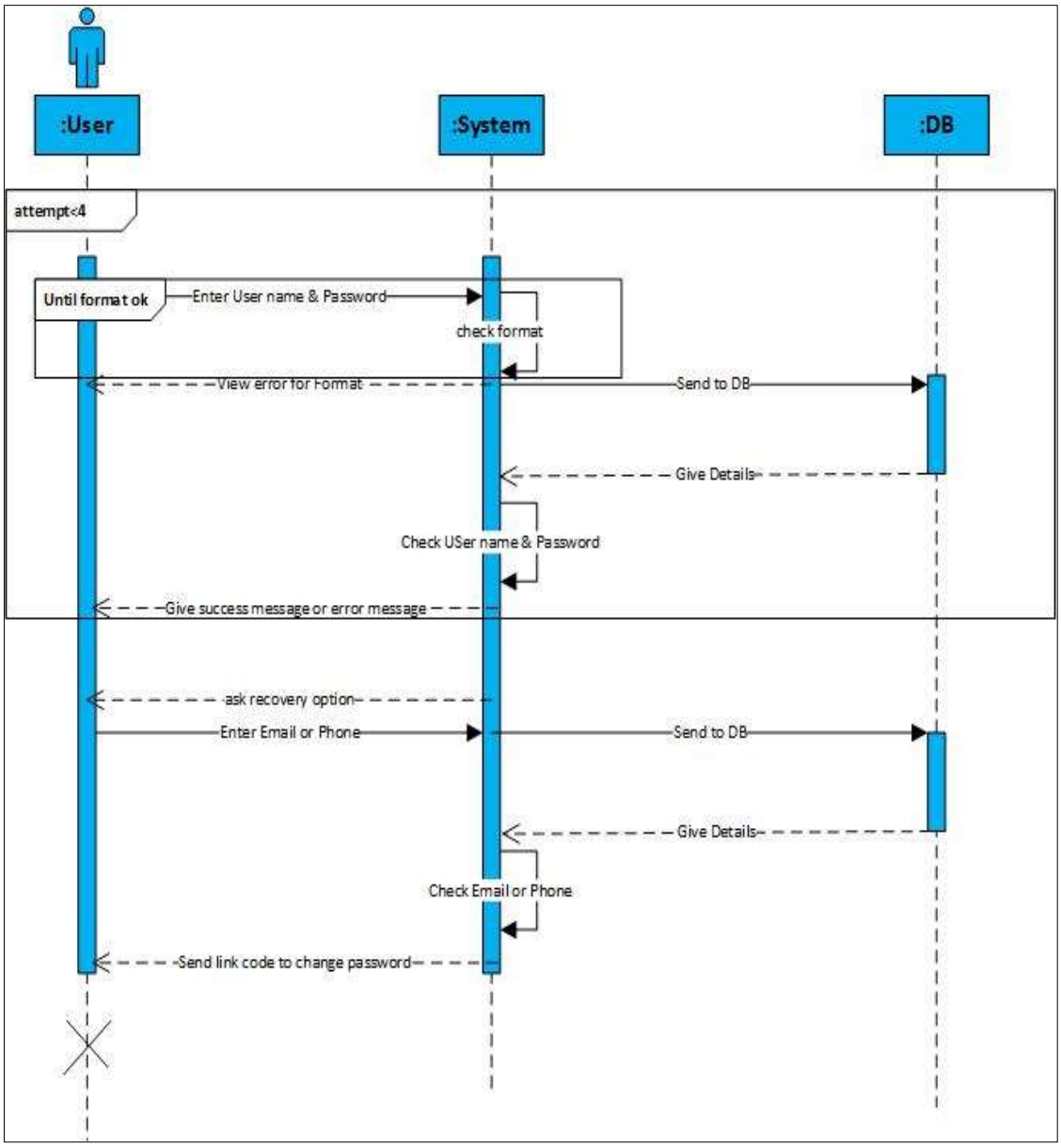


Figure B.4 Sequence diagram for login

The following Figure B.5 shows sequence diagram for register

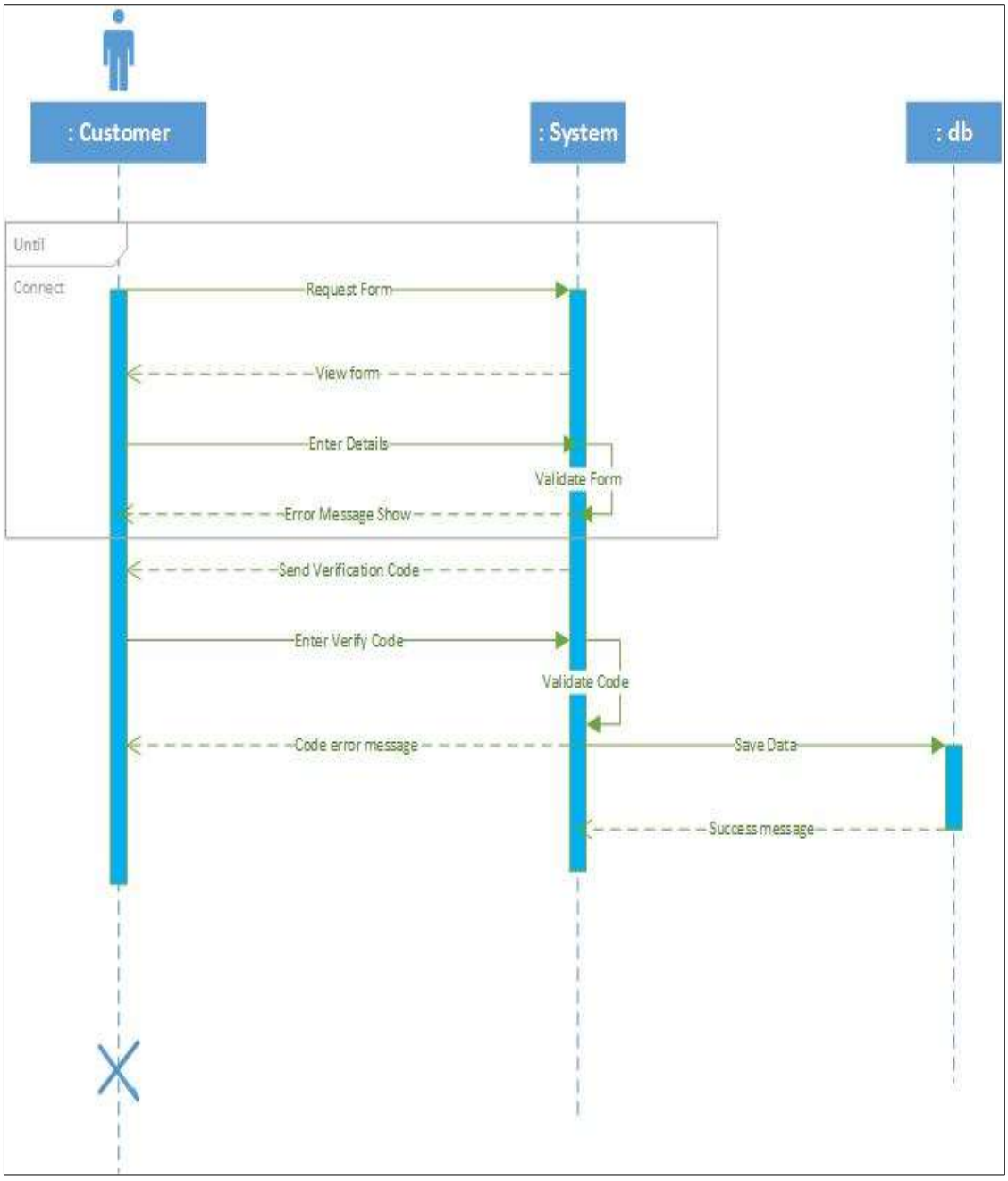


Figure B.5 Sequence diagram for register

Appendix C – User Documentation

Web based wedding management system of Loyolas has been developed with lots of functions and features in order to carry out their services smoothly. In order to get the maximum from the developed system, it is very important for a user to identify all the features of the system and how to use these functions and features efficiently. User documentation provides initial overview knowledge on using the web based management system system step by step.

Index Page

Index page is the home page of this system. It includes Home, Register, About us and Login tabs. And also it includes contact details and basic details about Loyolas and their facilities. This page linked with many linked pages. Figure C.1 shows index page of guest

Figure C.1 Guest index page

Guest Menu

Figure C.2 shows guest menu. New user can register them in this system through register tab and already registered customer can login through login tab. The loyolas wedding hall details are in this about us menu.

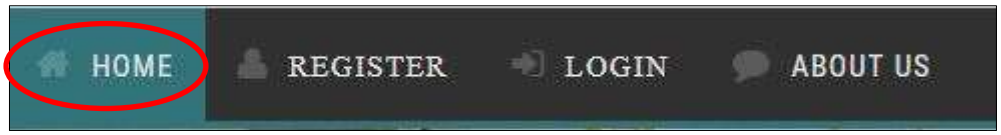


Figure C.2 Guest menu

Register interface

Figure C.3 shows register interface. New user can register through this form and they can access this system as customer. Here they want to fill this form. Except email ID they want fill all the field and want to give mobile number only.

Figure C.3 Register Interface

After click submit button, the message will show as like Figure C.4

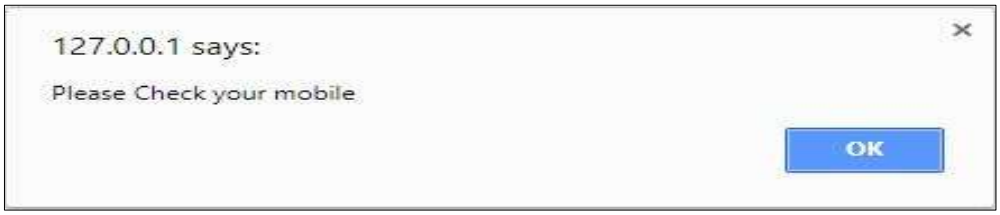


Figure C.4 Information of verification code

And registering person got verification code to his/her given mobile number. Then he/she want to enter the mobile number displayed screen as like Figure C.5.

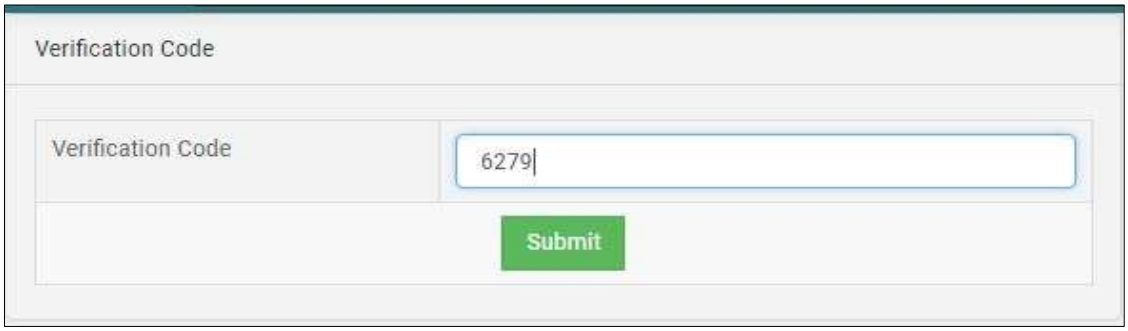


Figure C.5 Verification code entering interface

If the verification code is wrong, then the error message will be display like Figure C.6

Figure C.6 Verification code error message

If the verification code is right, then display message like Figure C.7 and the user will be successfully register to this system

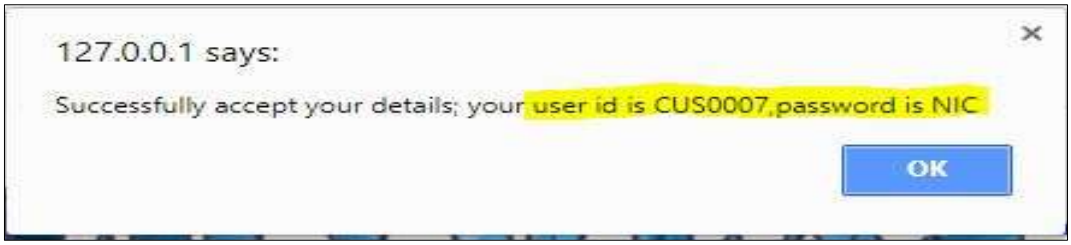


Figure C.7 Register successful message

Login Interface

Owner, clerk, staff and customer can login using their user name and password and they can access the system. Figure C.8 shows login interface.

Figure C.8 Login Interface

If the user name and password are ok then it leads to their index page or if they enter wrong user name or password, then the error message will be show as Figure C.9

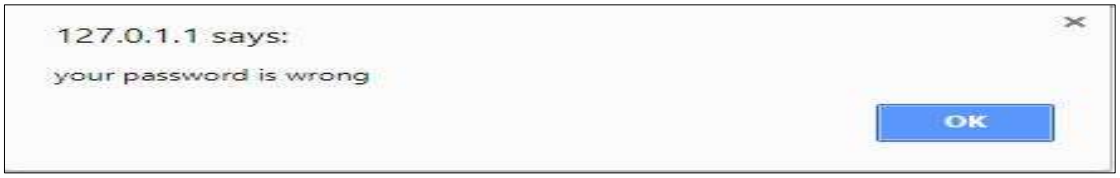


Figure C.9 Login error message

If they enter wrong password more than three times, then the error message will be show like Figure C.10 and want to go recovery option.

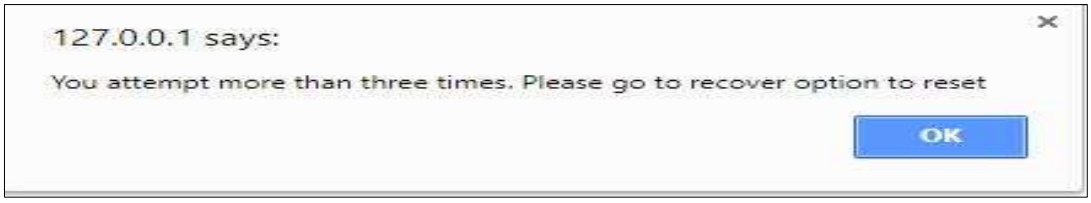


Figure C.10 Password error message

Forget Password

If anyone forgot their password then they can click forgot password button. When they click the interface will be show like Figure C.11

Figure C.11 Forgot password

In this interface, one want to enter their user name and their already given mobile number. If the mobile number is wrong then the error message will be show like Figure C.12.

Figure C.12 Mobile number error message

If the enter right mobile number, then the message will be show like Figure C.13. Then the password will be sent to the mobile number.

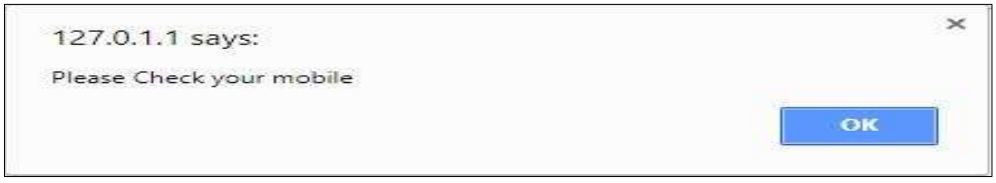


Figure C.13 Information to check mobile number

Clerk Menu

When login as clerk, then in index page following tabs will show. Figure C.14 shows clerk menu

Figure C.14 Clerk Menu

Sub menus in clerk index page

The following sub menus are in management, packages, booking, report and profile tabs. Figure C.15 shows management tab. Here clerk can add, view, edit, delete details of staff, hall, hall prices, beautician, videographer etc.

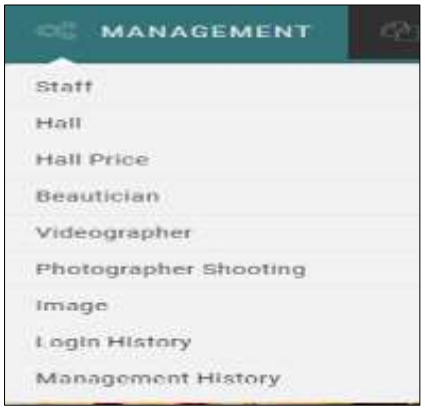


Figure C.15 Management sub menus

Figure C.16 shows packages menu. Here clerk can add, view, edit, delete details of Make up package , meals package, video package and their prices.

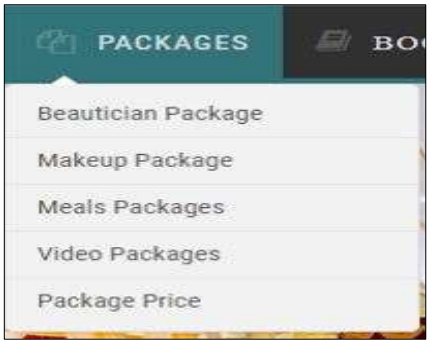


Figure C.16 Packages sub menus

Figure C.17 Shows booking menu. It includes bookings, comments, customer, payment details and hall, makeup, meal and video booking details.

Figure C.17 Booking sub menus

Figure C.18 shows report menu. Here can get all reports. Such as booking detail report, Payment report, staff report, packages report etc. The reports can get by date wise.

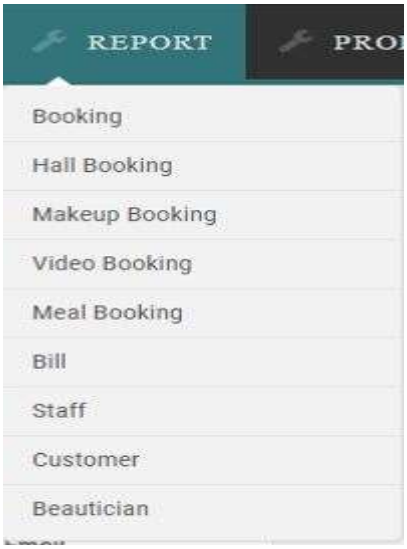


Figure C.18 Report sub menus

Figure C.19 shows the date wise selection interface of report

Figure C.19 Date selection interface for report

Figure C.20 shows profile menu. Here one can view and change their own profile and can change their password as their wish, can send messages and done logout through this menu.

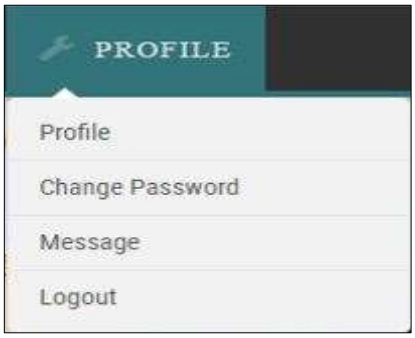


Figure C.20 Profile sub menu

Staff menu

Figure C.21 shows staff menu. Here staff can view the details but they can't add, edit or delete any details

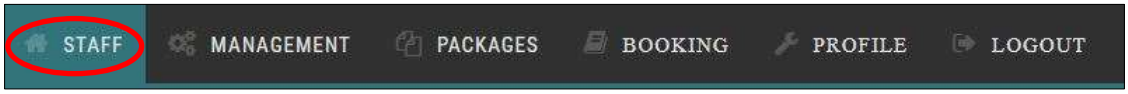


Figure C.21 Staff menu

Customer Menu

Figure C.22 shows customer menu. Here customer also view hall, beautician, videographer and packages. They can make booking, send message or comments and view their profile and change their password.

Figure C.22 Customer menu

Add images interface

Figure C.23 shows images add interface. When select a type such as makeup, hall, meals or videographer, then name field will automatically listed their name. E.g when select make up type then in name field, make up packages name will be appear.

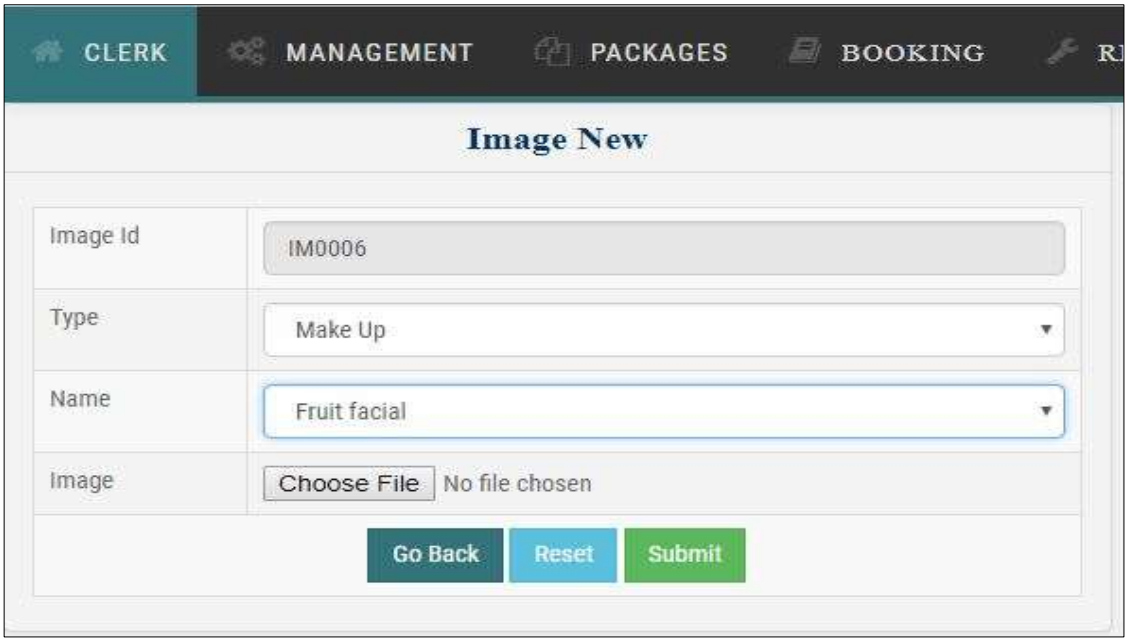


Figure C.23 Add images interface

Add package prices interface

Figure C.24 shows add package price details. When select the type then packages names will be appear automatically. Then can tick check box that we want add prices. After fill the form then want to click submit button

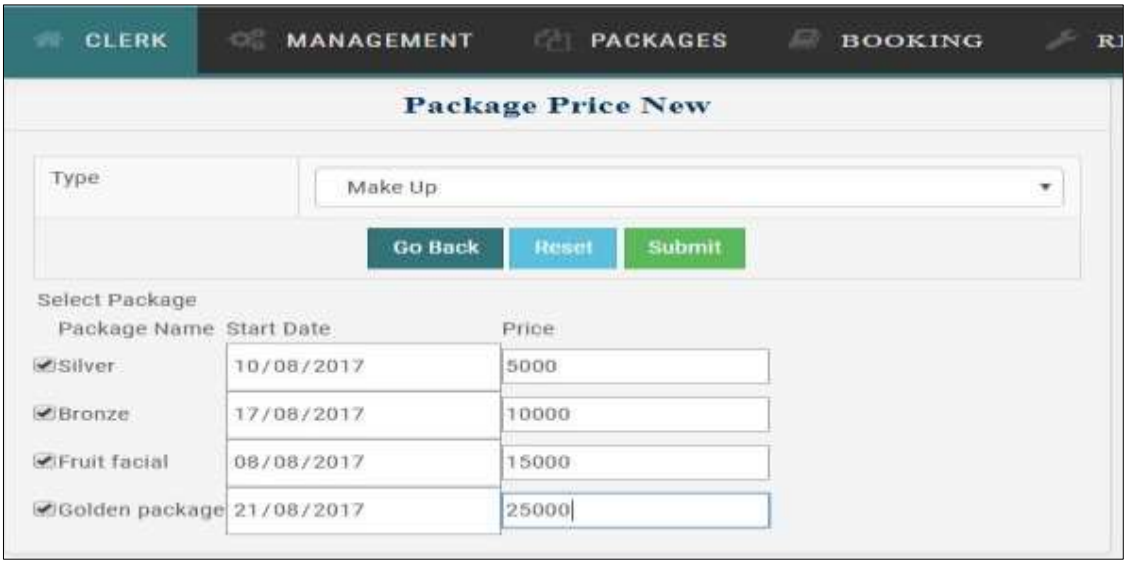


Figure C.24 Add package price interface

Add videographer details interface

Figure C.25 shows videographer details add form. Staff, beautician, other details entry form also like this one

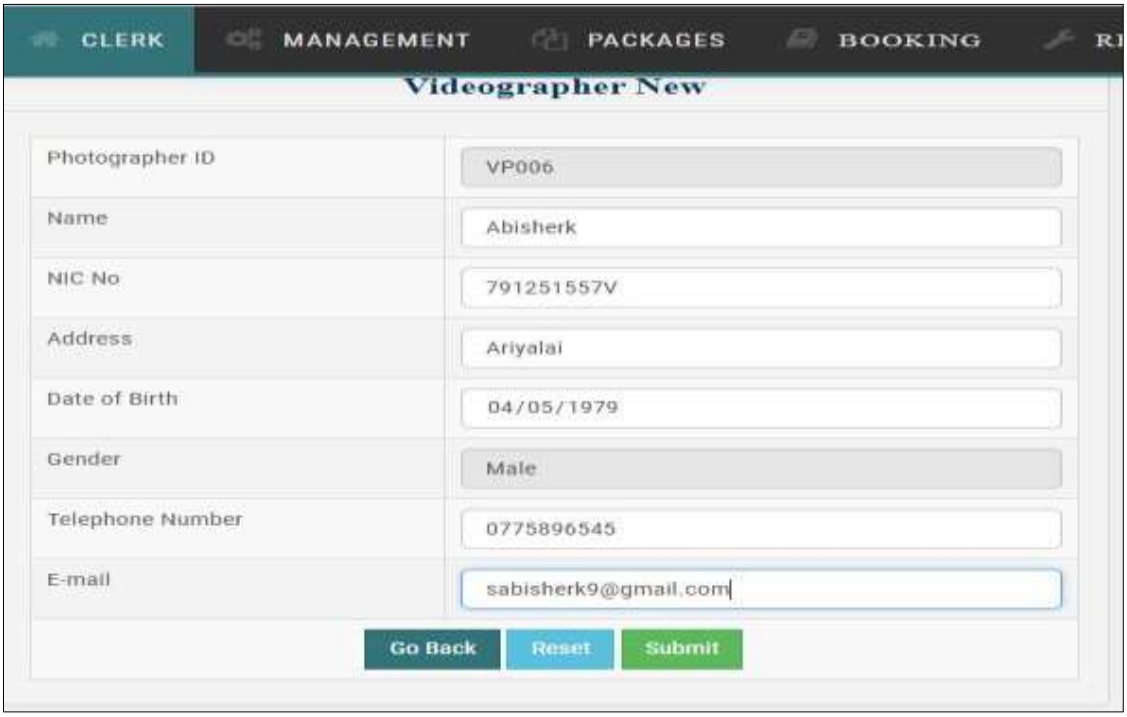


Figure C.25 Videographer add interface

In this entry form some validation are done. Figure C.26 shows a error message that occur when enter wrong length of NIC number.

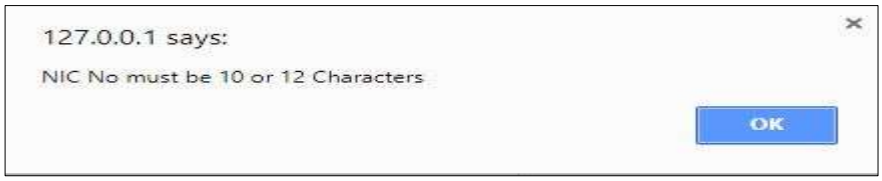


Figure C.26 NIC number error message for length validation

The following Figure C.27 shows a error message that occur when enter ten digits NIC number, then first 9 number isn't as number.

Figure C.27 NIC number error message for number validation

The following Figure C.28 shows a error message that occur when enter ten digits NIC number, last letter isn't equal to 'V' or 'X'.

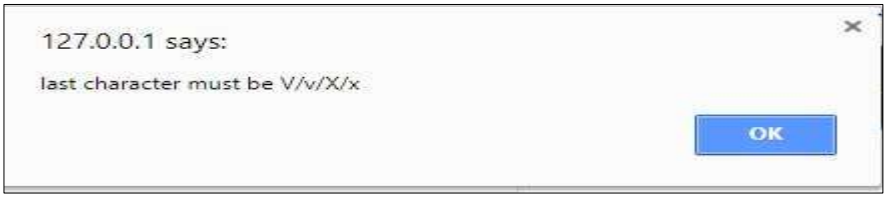


Figure C.28 NIC number validation error message for text validation

The following Figure C.29 shows a error message that occur enter wrong email address.

Figure C.29 E mail validation

The following Figure C.30 will appear when any required field was empty.

Figure C.30 Blank field validation

Add comment interface

Figure C.31 shows the comment interface. All the users can share comments in the system

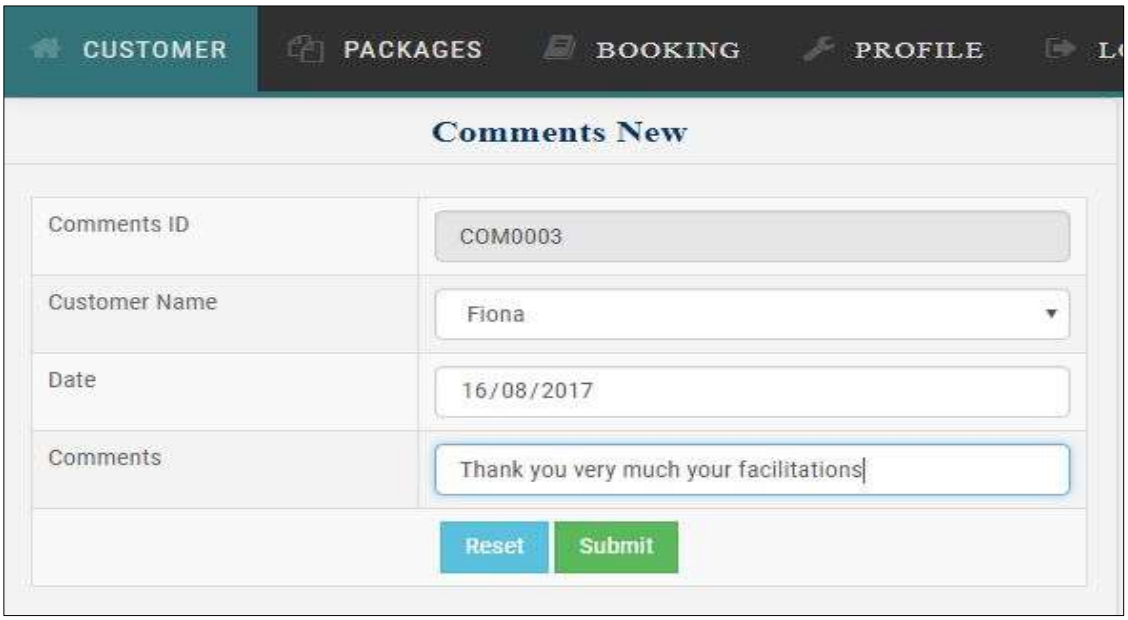


Figure C.31 Add comment interface

Beautician view interface

Figure C.32 shows beautician view. This view shows for owner and clerk. They can only add, edit and delete details. This view didn't show staff or customer.

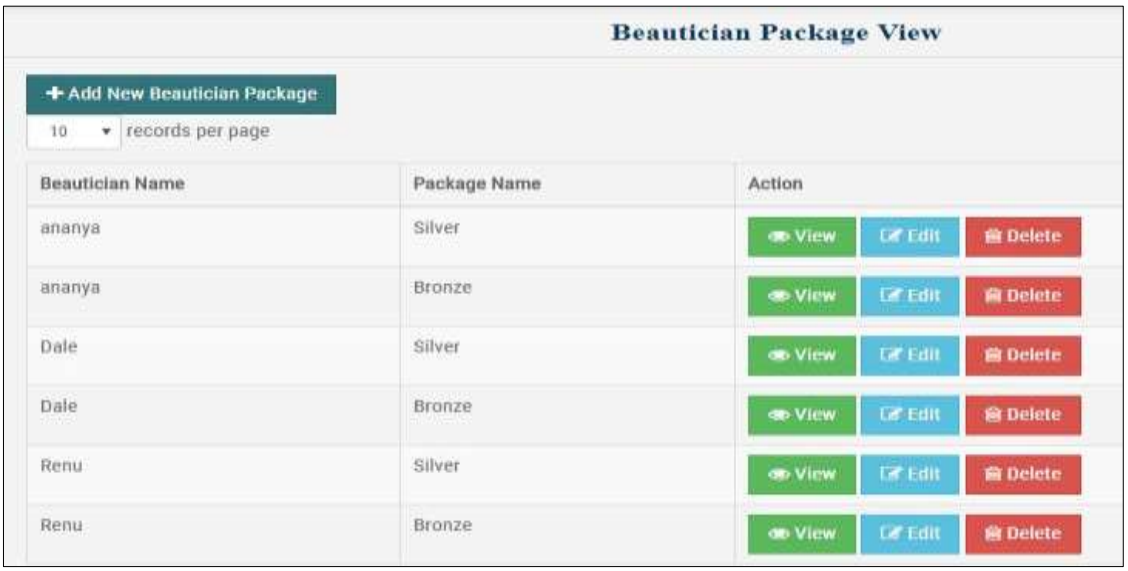


Figure C.32 Beautician view interface

Image view interface

Figure C.33 Shows image view interface

Figure C.33 Image view interface

Staff view interface

Figure C.34 shows staff view. This view shows for staff . They can only view details. They can't add, delete or edit data. This view didn't show owner or clerk

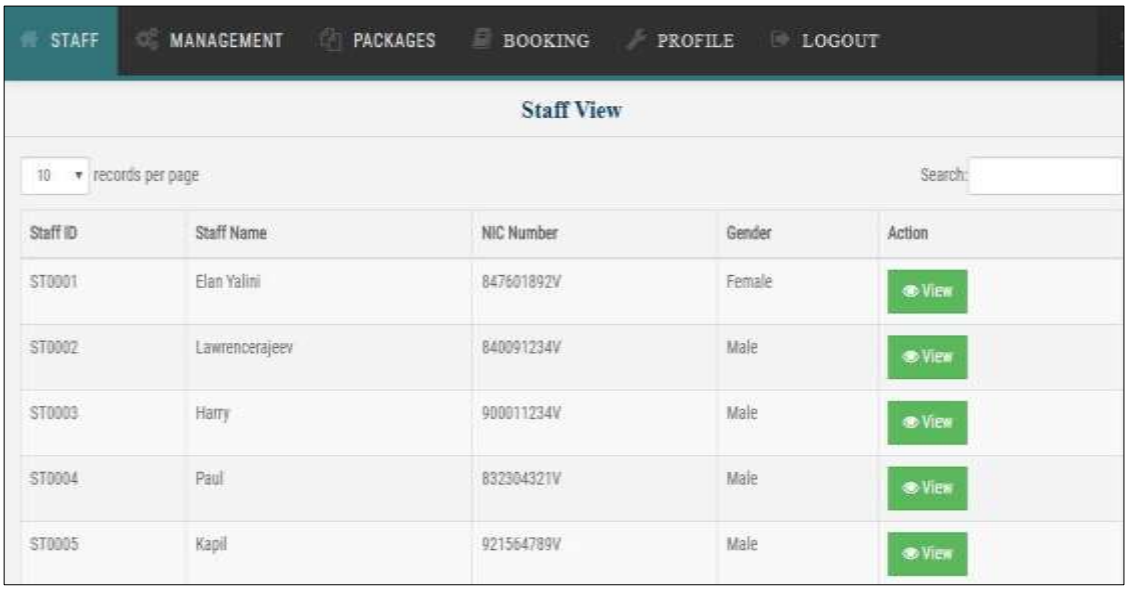


Figure C.34 Staff view interface

Edit makeup package interface

Figure C.35 shows edit interface of makeup package. Here package id couldn't change other details can be change. After changing want to click submit button.

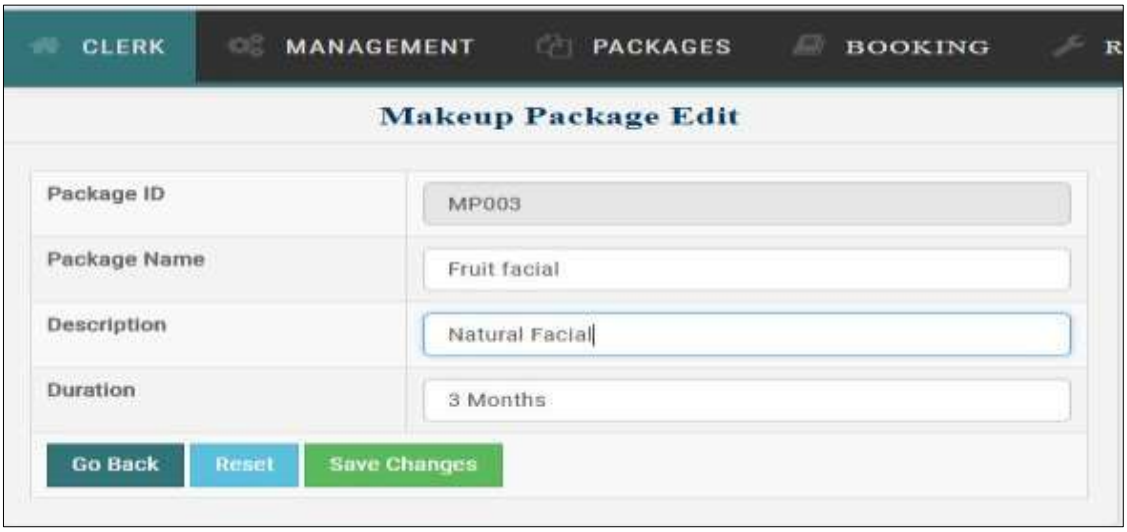


Figure C.35 Makeup edit interface

Action buttons

Figure C.36 shows actions button in the system

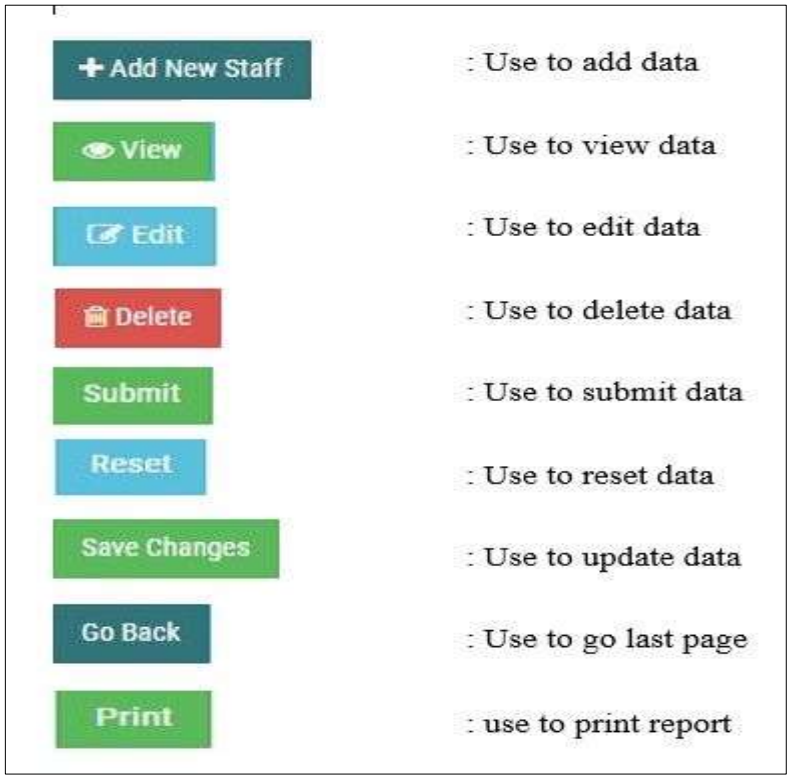


Figure C.36 Actions button

Search box

Figure C.37 shows search box. When start enter letter, it give sorted data

Figure C.37 Search box

Navigation Bar

Figure C.38 shows navigation bar. It use to get next previews data.

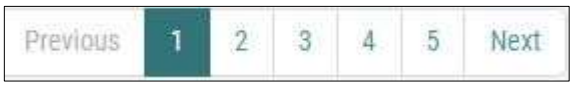


Figure C.38 Navigation bar

Map

Figure C.39 shows the map of Loyolas Wedding Hall

Figure C.39 Map of Loyolas Wedding Hall

Appendix D – Management Report

Meal booking details report

Figure D.1 Shows report of all meals booking details. This report can get by through given start date and end date. Also can get this report as package wise .

Loyolas
Wedding hall
St.Patricks Road, Jaffna

e-mail address : loyola0405@gmail.com

Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

Meal Booking Details

Start Date	2017-01-01
End Date	2017-10-30
Package Name	All

Meal Booking Details

Details Id	Booking Id	Pack ID	Function Date	Number of Items
MEBD0001	B0004	Gold package	2017-05-09	1500
MEBD0002	B0005	Silver package	2017-05-15	800
MEBD0003	B0008	Silver package	2017-10-08	850
MEBD0004	B0011	Gold package	2017-10-10	500
MEBD0005	B0014	Vegetable package	2017-10-12	700
MEBD0006	B0018	Gold package	2017-10-14	1000

Figure D.1 Meals booking detail report

Bill details report

Figure D.2 shows bill details report. It includes customers details and booking details with their price.

Figure D.2 Bill details report

A Staff full details report

Loyolas
Wedding hall
St.Patricks Road, Jaffna

e-mail address : loyola0405@gmail.com

Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

Staff Full Details

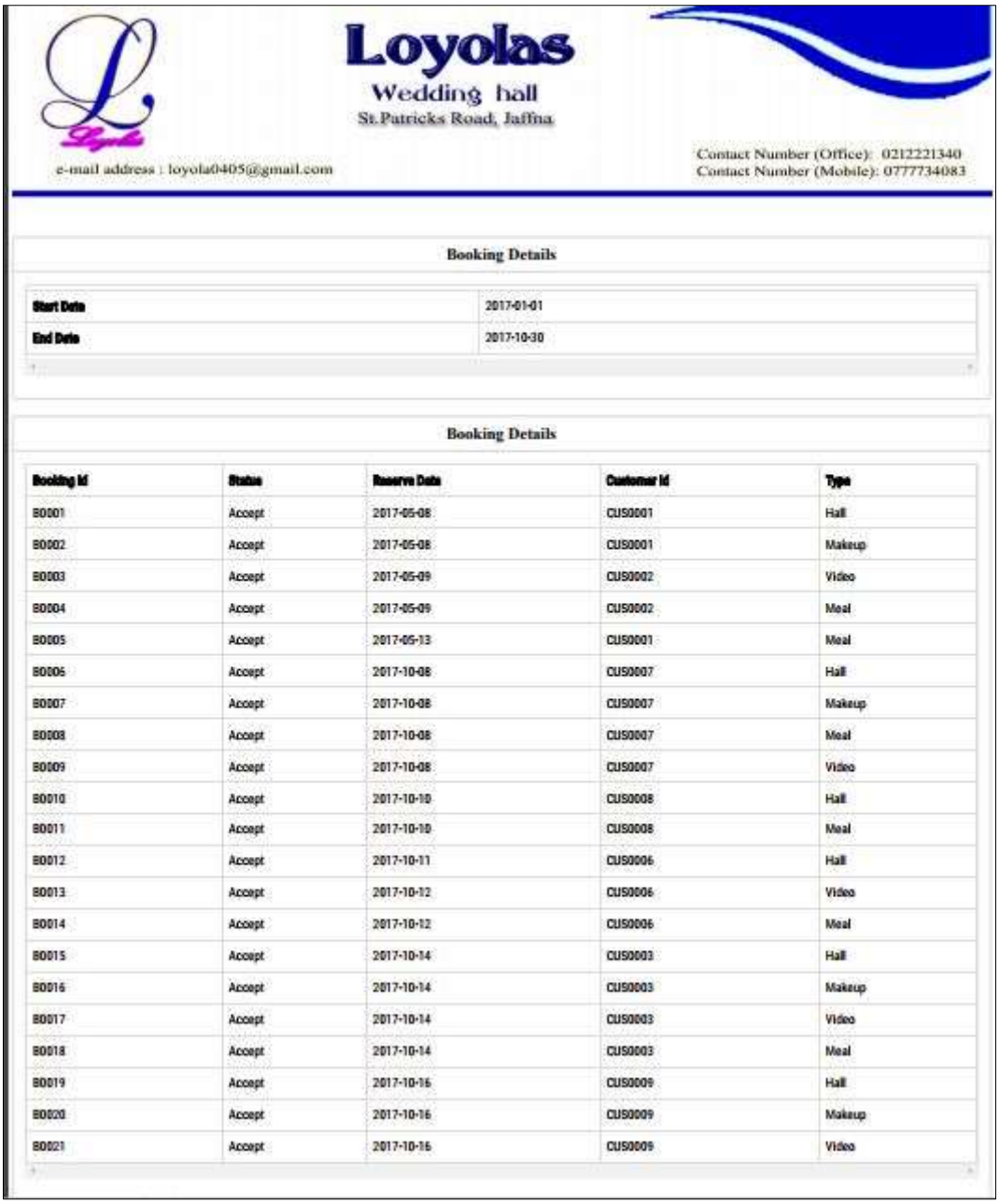
Staff ID	ST0005
Staff Name	Kapil
NIC Number	921564789V
Gender	Male
Date of Birth	1992-06-04
Designation	Staff
Join Date	2017-08-02
Email Address	kapil@gmail.com
Telephone Number	715698524
Address	Araly

Figure D.3 Individual Staff report

Figure D.3 shows an individual staff report

Booking details report

Figure D.4 shows booking all details as date wise.



Loyolas
Wedding hall
St.Patricks Road, Jaffna

e-mail address : loyola0405@gmail.com

Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

Booking Details

Start Date	2017-01-01
End Date	2017-10-30

Booking Details

Booking Id	Status	Reserve Date	Customer Id	Type
B0001	Accept	2017-05-08	CUS0001	Hall
B0002	Accept	2017-05-08	CUS0001	Makeup
B0003	Accept	2017-05-09	CUS0002	Video
B0004	Accept	2017-05-09	CUS0002	Meal
B0005	Accept	2017-05-13	CUS0001	Meal
B0006	Accept	2017-10-08	CUS0007	Hall
B0007	Accept	2017-10-08	CUS0007	Makeup
B0008	Accept	2017-10-08	CUS0007	Meal
B0009	Accept	2017-10-08	CUS0007	Video
B0010	Accept	2017-10-10	CUS0008	Hall
B0011	Accept	2017-10-10	CUS0008	Meal
B0012	Accept	2017-10-11	CUS0006	Hall
B0013	Accept	2017-10-12	CUS0006	Video
B0014	Accept	2017-10-12	CUS0006	Meal
B0015	Accept	2017-10-14	CUS0003	Hall
B0016	Accept	2017-10-14	CUS0003	Makeup
B0017	Accept	2017-10-14	CUS0003	Video
B0018	Accept	2017-10-14	CUS0003	Meal
B0019	Accept	2017-10-16	CUS0009	Hall
B0020	Accept	2017-10-16	CUS0009	Makeup
B0021	Accept	2017-10-16	CUS0009	Video

Figure D.4 Booking details report

Hall booking details report

Figure D.5 show hall booking details report according date wise

Loyolas
Wedding hall
St.Patricks Road, Jaffna

e-mail address : loyola0405@gmail.com

Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

Hall Booking Details

Start Date	2017-01-01
End Date	2017-10-30

Hall Booking Details

Details Id	Booking Id	Hall Id	Function Date	Start Time	End Time	Type	Function For
BD0001	B0001	H003	2017-05-08	05:06:00	08:09:00	half	reception
BD0002	B0006	H001	2017-10-08	09:00:00	04:00:00	full	wedding
BD0003	B0010	H002	2017-10-10	08:00:00	03:00:00	full	pubertyceremony
BD0004	B0012	H003	2017-10-12	03:00:00	10:00:00	half	reception
BD0006	B0019	H002	2017-10-16	04:00:00	12:00:00	half	reception

Figure D.5 Hall booking details

Customer Detail Report

Figure D.6 shows report of the customers

Loyolas
Wedding hall
St.Patricks Road, Jaffna

e-mail address : loyola0405@gmail.com

Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

Customer Details

Start Date	1950-01-01
End Date	2017-10-30

Customer Details

Customer Id	Customer Name	NIC Number	Gender Id	Date of Birth	Email	Telephone Number	Address
CUS0001	Mainthan	902502408V	Male	1990-09-06	asd@gmail.com	771234567	Jaffna
CUS0002	Fiona	897601892V	Female	1989-09-16	fiona@gmail.com	774567893	Manipay
CUS0003	Kajani	915502408V	Female	1991-02-19	kajani98@gmail.com	773490697	Jaffna
CUS0004	Benadict	551268965V	Male	1955-05-05		775436101	Pandaterippu
CUS0005	S.Harish	852407892V	Male	1985-08-27	harish18@gmail.com	778935420	827,Hospital Road, Jaffna
CUS0006	Benedict	651254763V	Male	1965-05-04	benedict01@gmail.com	773490697	Ilavalai
CUS0007	Naayaki	785682156V	Female	1978-03-08		773472797	Manipay
CUS0008	Harish	790455786V	Male	1979-02-14	harish7685@gmail.com	773490697	Jaffna
CUS0009	raja	847601892V	Female	1984-09-16		777734083	jaffna

Figure D.6 Customer details report

Beautician Details Report

Figure D.7 shows beautician report

Loyolas
Wedding hall
St.Patricks Road, Jaffna

e-mail address : loyola0405@gmail.com

Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

Beautician Details

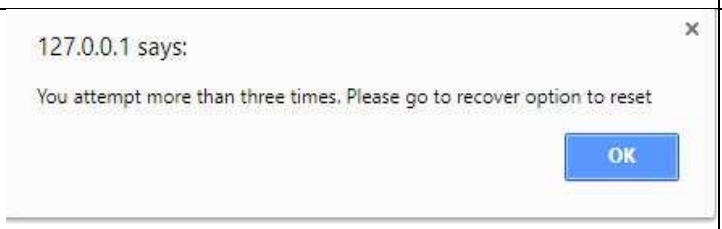
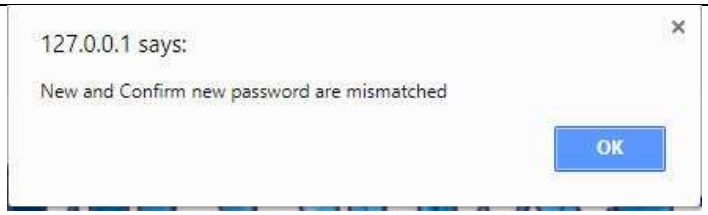
Start Date	1950-01-01
End Date	2017-10-01

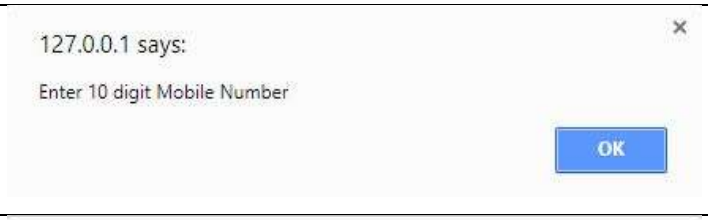
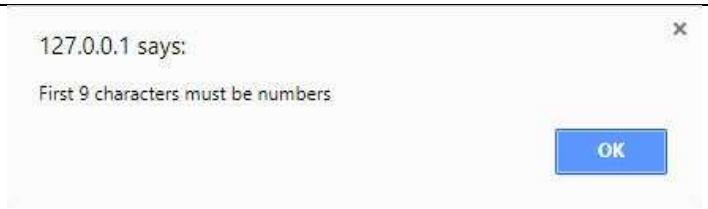
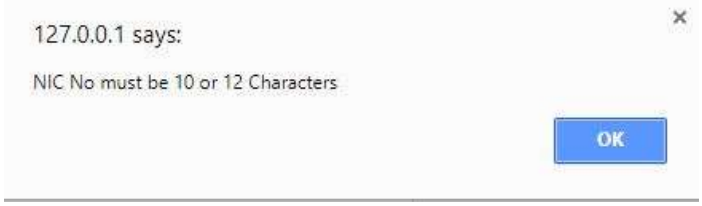
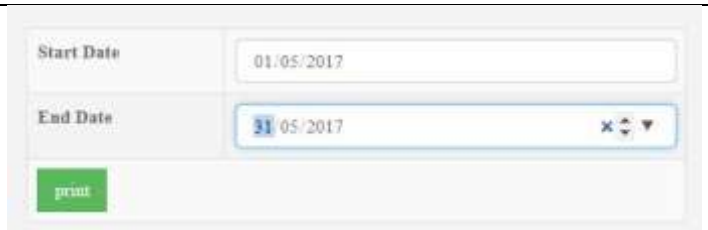
Beautician Details

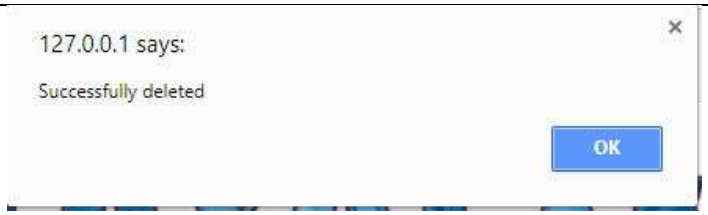
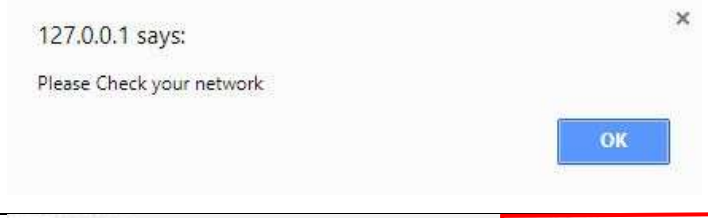
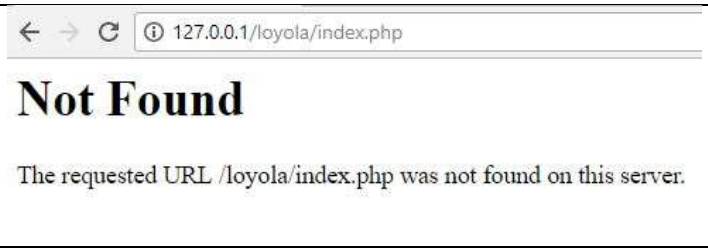
Beautician Id	Beautician Name	NIC Number	Address	Date of Birth	Gender	Telephone Number	Email
BE0001	Renu	847601894V	Jaffna	1990-09-06	Male	775698421	jeni@gmail.com
BE0002	ananya	854796524V	manipay	1985-06-10	Female	775698452	dfg@gmail.com
BE0003	Sarah	927614623V	Thavady	1992-09-17	Female	773400000	
BE0004	Dale	805684562V	Kopay	1980-03-08	Female	212225695	
BE0005	S.Harisca	925726854V	Annaikkoddai	1992-03-12	Female	775845632	harisca34@gmail.com
BE0006	Nayana	925894563V	Jaffna	1992-03-29	Female	775862145	nayanasd@yahoo.com
BE0007	Hamsika	745892365V	Ariyalai	1974-03-29	Female	775896541	hamsi43@gmail.com
BE0008	Miruthula	857895632V	Patricks road, Jaffna	1985-10-15	Female	758963214	miru65@gmail.com

Figure D.7 Beautician details report

Appendix E – Test Result

No	Test	Screenshot	Status
01	When enter wrong username or password		Pass
02	If enter wrong password more than three times		Pass
03	In change password, when enter wrong current password		Pass
04	In change password, when enter new password and new confirm password are different		Pass
05	When required fields are not entered		Pass
06	When enter wrong email address		Pass

07	When enter less or more than 10 digits number for mobile number.		Pass
08	When enter 10 digits NIC number, first nine number must be number, if is not		Pass
09	When enter NIC number, It must be 10 or 12 characters, if is not		Pass
10	When enter 10 digits NIC number, last character must be 'V' or 'X'. If is not		Pass
11	The date picker		Pass
12	Date selection for print report		Pass
13	When insert data successfully		Pass

14	When edit data successfully		Pass
15	Confirm to delete a data		Pass
16	Successful delete data		Pass
17	When network problem		Pass
18	Searching data		Pass
19	Enter wrong URL		Pass

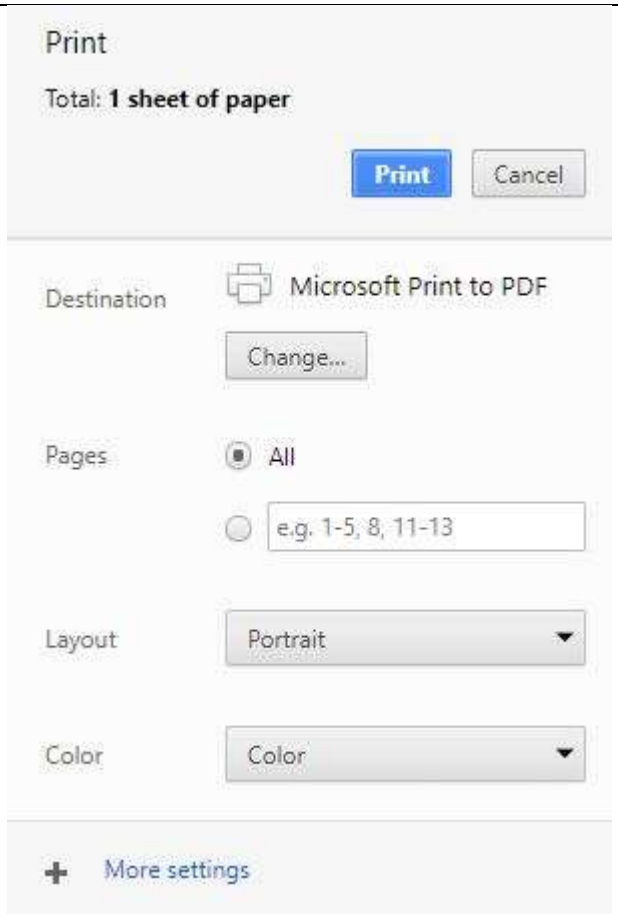
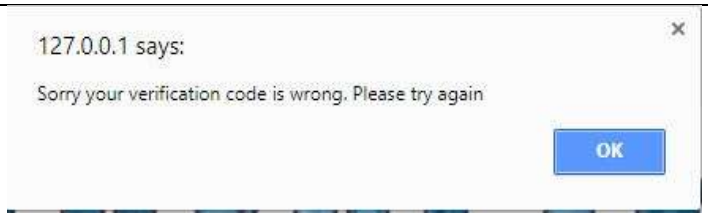
20	Print option		Pass
21	When enter wrong verification code		Pass

Table E.1 Test results

Appendix F – Code Listing

ID generation coding

```
<?php
        $sqlstaffid="SELECT staffid FROM staff ORDER BY staffid DESC LIMIT 1";
        $resultstaffid=mysql_query($sqlstaffid)or die("sql error in sqlstaffid".mysql_error());
        if(mysql_num_rows($resultstaffid)>0)
        {
           $rowstaffid=mysql_fetch_assoc($resultstaffid);
           $staffid=++$rowstaffid["staffid"];
        }
        else
        {
           $staffid="ST0001";
        }
        ?><input type="text" class="form-control" name="txtstaffid" id="txtstaffid" value="<?php echo $staffid; ?>" readonly> </td>
```

Option load in hall booking details

```
<tr>
      <td> Hall Name </td> <td>
      <select class="form-control" name="txthallid" id="txthallid" required>
      <option value="select_hall"> Select the Hall </option>
      <?php
        $sqlhallload="SELECT hallid,hallname FROM hall";
        $resulthallload=mysql_query($sqlhallload)or die("sql error in sqlhallload".mysql_error());
        while($rowhallload=mysql_fetch_assoc($resulthallload))
        {
           echo'<option value="'.$rowhallload["hallid"].'"> '.$rowhallload["hallname"].' </option>';
        }
      ?>
      </select></td>
      </tr>
```

Text validation

```
function isTextKey(evt) // only text to allow the input field
    {
        var charCode = (evt.which) ? evt.which : event.keyCode;
        if (((charCode >64 && charCode < 91)||(charCode >96 && charCode < 123)||charCode
==08 || charCode ==127||charCode ==32||charCode
==46)&&(!(evt.ctrlKey&&(charCode==118||charCode==86))))
            return true;

            return false;
    }
<tr> <td> Staff Name </td> <td>
<input type="text" class="form-control" name="txtstaffname" id="txtstaffname"
onkeypress="return isTextKey(event)" required> </td>
</tr>
```

Number validation

```
function isNumberKey(evt) // only numbers to allow the input field
    {
        var charCode = (evt.which) ? evt.which : event.keyCode;
        if (charCode != 46 && charCode > 31 && (charCode < 48 || charCode > 57))
            return false;

        return true;
    }
<tr> <td> Telephone Number </td> <td>
      <input type="number" class="form-control" name="txttpnumber"
onblur="phonenumber()" id="txttpnumber" onkeypress="return isNumberKey(event)"
required> </td>
</tr>
```

Phone number Validation

```
function phonenumber() // Mobile No
{
var phoneno = /^\d{10}$/;
  if(document.getElementById("txtmobilenumber").value=="")
  {
```

```
    }
    else
    {
        if( document.getElementById("txtmobilenumber").value.match(phoneno))
        {
            //return true;
            hand();
        }
        else
        {
            alert("Enter 10 digit Mobile Number");
            document.getElementById("txtmobilenumber").value="";
            document.getElementById("txtmobilenumber").focus()=true;
            return false;
        }
    }
}

function hand()
{
    var str = document.getElementById("txtmobilenumber").value;
    var res = str.substring(0, 2);
    if(res=="07")
    {
        return true;
    }
    else
    {
            alert("enter 10 digit of Mobile Number");
            document.getElementById("txtmobilenumber").value="";
            document.getElementById("txtmobilenumber").focus()=true;
            return false;
    }
}
<tr> <td> Telephone Number </td> <td>       <input type="number" class="form-control"
name="txttpnumber" onblur="phonenumber()" id="txttpnumber" onkeypress="return
isNumberKey(event)" required> </td>
```

```
</tr>
```

Date of Birth calculation

```
function calculatedob(nic)
{
  var xmlhttp = new XMLHttpRequest();
  //var page = <?php echo json_encode($pagename); ?>;
  xmlhttp.onreadystatechange = function()
  {
    if (xmlhttp.readyState == 4 && xmlhttp.status == 200)
    {
      if(xmlhttp.responseText==0)
      {
        alert("Your age is less than 18; you cannot register as user");
        document.getElementById("txtnic").value="";
        document.getElementById("txtnic").focus();
        if(page=="customer" || page=="register")
        {
          document.getElementById("txtdateofbirth").value="";
        }
        else
        {
          document.getElementById("txtdate").value="";
        }
      }
      else
      {

        if(page=="customer" || page=="register")
        {
          document.getElementById("txtdateofbirth").value = xmlhttp.responseText;
          eligibleniccus(nic);
        }
        else
        {
          document.getElementById("txtdate").value = xmlhttp.responseText;
          eligiblenicstaff(nic);
```

```
            }
        }
    }
  };
  xmlhttp.open("GET", "ajaxpage.php?frompage=dob&dobcal=" + nic, true);
  xmlhttp.send();
}
```

Delete Data

```
function deletedata()
  {
    var x=confirm("Are you sure do you want to delete this data?");
    if(x)
    {
       return true;
    }
    else
    {
       return false;
    }
  }
```

Edit data of Hall details

```
if($_GET["option"]=="edit")
  {
    $hallid=$_GET["hallid"];
    $sqlhalledit="SELECT * FROM hall WHERE hallid='$hallid'";
    $resulthalledit=mysql_query($sqlhalledit)or die("sql error in
sqlhalledit".mysql_error());
    $rowhalledit=mysql_fetch_assoc($resulthalledit);
    echo '<form name="halledit" id="halledit" action="" method="POST">';
    echo'<div class="row">
          <div class="col-lg-6">
            <div class="panel panel-default">
              <div class="panel-heading">
                Hall Edit
              </div>
              <div class="panel-body">
```

```
                    <div class="table-responsive">
                        <table class="table table-striped table-bordered table-hover"
id="dataTables-example">';
echo'<tr><th> Hall ID</th><td>
<input type="text" class="form-control" readonly name="txthallid" id="txthallid"
value="'.$rowhalledit["hallid"].'"> </td> </tr>';
 echo'<tr>
 <th> Hall Name </th>
 <td><input type="text" class="form-control" name="txthallname" id="txthallname" required
value="'.$rowhalledit["hallname"].'"> </td>
</tr>';
echo'<tr>
<th> Number of Attendance </th>
<td><input type="number" class="form-control" name="txtnumberofattendance" required
onkeypress="return isNumberKey(event)" id="txtnumberofattendance"
value="'.$rowhalledit["numberofattendance"].'"> </td>
</tr>';
echo'<tr>
<th> Description </th>
<td><input type="text" class="form-control" name="txtdescription" id="txtdescription"
value="'.$rowhalledit["discription"].'"> </td>
</tr>';
echo'<tr>
<th> A/C </th>
<td>
<select class="form-control" name="txtac" id="txtac">';
$type=array("Yes","No");
for($x=0;$x<count($type);$x++)
{
    if($rowhalledit["ac"]==$type[$x])
        {
                    echo '<option selected value="'.$type[$x].'">'.$type[$x].'</option>';
        }
    else
        {
                    echo '<option    value="'.$type[$x].'">'.$type[$x].'</option>';
        }
```

```
}
echo '</select></td>
</tr>';
echo'<tr><th> TV </th>
<td><select class="form-control" name="txttv" id="txttv">';
$type=array("Yes","No");
for($x=0;$x<count($type);$x++)
  {
    if($rowhalledit["tv"]==$type[$x])
      {
                    echo '<option selected value="'.$type[$x].'">'.$type[$x].'</option>';
      }
    else
      {
                    echo '<option value="'.$type[$x].'">'.$type[$x].'</option>';
      }
 }
echo '</select></td> </tr>';
echo'<tr>
<th> Chairs/Table </th>
<td><select class="form-control" name="txtchairstable" id="txtchairstable">';
$type=array("Both","Chairs","Table");
for($x=0;$x<count($type);$x++)
   {
if($rowhalledit["chairs_table"]==$type[$x])
        {
            echo '<option selected value="'.$type[$x].'">'.$type[$x].'</option>';
     }
 else
     {
            echo '<option value="'.$type[$x].'">'.$type[$x].'</option>';
     }
 }
echo '</select></td> </tr>';
echo'<tr><td colspan="2"><a href="index.php?pg=hall.php&option=view">
<input class="btn btn-primary" type="button" value="Go Back"></a>
<input class="btn btn-info" type="reset" name="btnreset" id="btnreset" value="Reset">
```

```
<input class="btn btn-success" type="submit" name="btnsubmitedit" id="btnsubmitedit"
value="Save Changes"></td></tr>';
echo'</table></div></div></div></div></div>';
echo '</form>';
}
```

Update Coding of Staff

```
if(isset($_POST["btnsubmitedit"]))
{
  $sqlstaffupdate="UPDATE staff SET
  staffname='".mysql_real_escape_string($_POST["txtstaffname"])."',
  nic='".mysql_real_escape_string($_POST["txtnic"])."',
  gender='".mysql_real_escape_string($_POST["txtgender"])."',
  dob='".mysql_real_escape_string($_POST["txtdob"])."',
  designation='".mysql_real_escape_string($_POST["txtdesignation"])."',
  joindate='".mysql_real_escape_string($_POST["txtjoindate"])."',
  email='".mysql_real_escape_string($_POST["txtemail"])."',
  tpnum='".mysql_real_escape_string($_POST["txttpnumber"])."',
  address='".mysql_real_escape_string($_POST["txtaddress"])."'
  WHERE staffid='".$_POST["txtstaffid"]."'";
  $resultsatffupdate=mysql_query($sqlstaffupdate)or die("sql error in
sqlstaffupdate".mysql_error());
  if($resultsatffupdate)
  {
    echo'<script>alert("Successfully updated");

window.location.href="index.php?pg=staff.php&option=fullview&staffid='.$_POST["txtstaffi
d"]."';</script>';
  }
}
```

Appendix G – Client Certificate

Loyolas
Wedding hall
St.Patricks Road, Jaffna

e-mail address : loyola0405@gmail.com

Contact Number (Office): 0212221340
Contact Number (Mobile): 0777734083

02.11.2017

BIT Coordinator,
University of Colombo School of Computing,
Colombo 07.

Dear Sir/ Madam,

Letter of Certification

This is certify that Miss.Elan Yalini Antony Victor (847601892V) has successfully designed and developed a web based management system for Loyolas Wedding Hall. The project was undertaken by his partial fulfillment of a requirements for the Bachelor of Information Technology Degree Program.

The system was fully satisfied with our requirements and this system, web based management system would be solution for us and our customer. From this system, customer can easily make booking through online and also enabled the smooth operation of our wedding hall to manage bookings . It has enhanced our relationship with customer. I'm pleased to certify that the system developed by Miss.Elan Yalini Antony Victor fulfill the requirements of the wedding hall and could be used as our management system and host to public use.

Thank you

Yours Faithfully

Mr.A.C.Loyola

Owner,
Loyolas Wedding Hall,
Jaffna.

PROPRIETOR
(A.C.Loyola)
LOYOLAS

GLOSSARY

AJAX (Asynchronous JavaScript and XML) - is a group of interrelated web development methods used on the client-side to create interactive web applications.

Apache – Open source web server.

CSS (Cascading Style Sheet) - is a style sheet language used to describe the presentation semantics (the look and formatting) of a document written in a mark-up language

Database – is an organized collection of data for one or more purposes, usually in digital form.

Domain - is knowledge about the environment in which the target system operates.

GUI (Graphical User Interface) - is a type of user interface that allows users to interact with electronic devices with images rather than text commands.

JavaScript – it is one of the Client-side scripting languages.

OO – Object Oriented, is an approach to designing modular, reusable software systems.

PHP – Hypertext Pre-Processer, it is one of the famous server side scripting languages.

SDLC – Software Development Life Cycle is a structure imposed on the development of a software product.

UML – Unified Modeling Language, is a graphical language for visualizing, specifying, constructing and documenting the artifacts of a software-intensive system.

Validation – Checking whether the system satisfies user requirements.

Verification - Checking whether the system satisfies system specification

WWW (World Wide Web) - is a system of interlinked hypertext documents accessed via the Internet.

Web browser - is a software which allows the user to access WWW.