

# **E-FIESTA**

## **A PROJECT REPORT**

*Submitted By*

*Aishwarya N. Iyer (120770107009)*

*Gayathree N. Iyer (120770107042)*

*In fulfillment for the award of the degree of*

## **BACHELOR OF ENGINEERING**

*in*

**COMPUTER ENGINEERING**



**SILVER OAK COLLEGE OF ENGINEERING AND  
TECHNOLOGY, AHMEDABAD- 382481.**

**Gujarat Technological University, Ahmedabad**

**2015- 2016**

# Silver Oak College of Engineering & Technology

Computer Engineering Department

2015

## CERTIFICATE

TM  
Date:

This is to certify that the project entitled “E- Fiesta” has been out by **Ms. Aishwarya N. Iyer (120770107009), Ms. Gayathree N. Iyer (120770107042)** under my guidance in fulfillment of the Degree of Bachelor of Engineering in Computer Engineering 8<sup>th</sup> Semester of Gujarat Technological University, Ahmedabad during the academic year 2015-2016.

**Internal guide**

Ms. Khyati Patel,  
Assistant Prof.(CE)  
Computer Engineering

**Head of Department**

Prof. Satvik Khara  
Computer Engineering

We think about your future

## **Candidate's Declaration**

We hereby declare that project report titled “**E-FIESTA**” submitted towards the completion of Project in 8<sup>th</sup> semester of Bachelor of Computer Engineering in Silver Oak College of Engineering & Technology, Ahmedabad is an authentic record of our work carried out.

First Candidate's Name : **Aishwarya N. Iyer**

Branch : **Computer Engineering**

Enrollment No : **120770107009**

Candidate's Signature :

Second Candidate's Name : **Gayathree N. Iyer**

Branch : **Computer Engineering**

Enrollment No : **120770107042**

Candidate's Signature :

Submitted To: **Silver Oak College of Engineering & Technology,**

Ahmedabad,

Affiliated to,

**Gujarat Technological University.**

# **TABLE OF CONTENT**

<b>Acknowledgement</b>	<b>I</b>
<b>Abstract</b>	<b>II</b>
<b>List Of Tables</b>	<b>III</b>
<b>List Of Figures</b>	<b>IV</b>
<b>1. INTRODUCTION</b>	<b>1</b>
1.1 Project Summary	2
1.2 Purpose	2
1.3 Scope	2
1.4 Technology and Literature Review	3
<b>2. PROJECTMANAGEMENT</b>	<b>5</b>
2.1 Project Planning and Scheduling	6
2.1.1 Project Development Approach	6
2.1.2 Project Planning	8
2.1.3 Schedule Representation	12
2.2 Risk Management	13
2.2.1 Risk Identification	13
2.2.2 Risk Analysis	14
2.2.3 Risk Planning	16
2.3 Estimation	16
2.3.1 Effort Estimation	16
2.3.2 Cost Analysis	17
2.3.3 Cost Estimation	18
<b>3. SYSTEM REQUIREMENT STUDY</b>	<b>20</b>
3.1 User Characteristics	21
3.2 Hardware and Software Requirements	21
3.3 Constraints	22
3.3.1 User Interface	22
3.3.2 Communication Interface	22
3.3.3 Hardware Interface	22
3.3.4 Software Interface	22
3.3.5 General Constraints	22
3.3.6 Assumptions	22
<b>4. SYSTEM ANALYSIS</b>	<b>23</b>
4.1 Study of current system	24
4.2 Problems and weakness of current system	24
4.3 Requirement of new system	25
4.3.1 Functional Requirements	25

4.3.2	Non-Functional Requirements	27
4.4	Feasibility Study	29
4.4.1	Technical Feasibility	29
4.4.2	Operational Feasibility	30
4.4.3	Economical Feasibility	31
4.5	Requirement Validation	31
4.6	Functions of system	32
4.6.1	Use Cases	32
4.6.2	Sequence Diagram	35
4.7	Data Modeling	36
4.7.1	Class Diagram	36
4.7.2	Activity Diagram	38
4.7.3	Data Dictionary	39
4.8	State Diagram	41
4.9	Data Flow Diagram	42
4.10	Main Modules Of New System	44
4.11	Selection of hardware and software	44
<b>5.</b>	<b>SYSTEM DESIGN</b>	<b>45</b>
5.1	Database Design/Data Structure Design	46
5.1.1	Mapping Objects/Classes to Tables	46
5.1.2	Tables and Relationships	48
5.1.3	Logical Description of Data	49
5.2	System Procedural Design	50
5.2.1	Designing Pseudo Code or Algorithm for Method or Operations	50
5.3	Input/Output and Interface Design	50
5.3.1	Samples of Forms, Reports and Interface	50
5.3.2	Access Control and Security	51
5.4	System Architecture Design	52
<b>6.</b>	<b>IMPLEMENTATION, PLANNING AND DETAILS</b>	<b>53</b>
6.1	Implementation Environment	54
6.2	Program/Module Specification	54
6.3	Security Features	54
6.4	Coding Standards	55
6.5	Sample Coding	56
<b>7.</b>	<b>TESTING</b>	<b>64</b>
7.1	Test Plan	65
7.2	Testing Strategy	66
7.2.1	Unit Testing	66
7.2.2	Integration Testing	66
7.2.3	Validation Testing	67
7.2.4	Performance Testing	67
7.2.5	Alpha and Beta Tests	67
7.3	Testing Method	67

7.3.1	Black Box Testing	67
7.3.2	White Box Testing	68
7.4	Test Case	69
<b>8.</b>	<b>SCREENSHOTS AND USER MANUAL</b>	<b>70</b>
8.1	Admin Side Screenshot	71
8.2	User Side Screenshot	72
8.2.1	Splash Screen	72
8.2.2	Login Page	72
8.2.3	Registration Form	73
8.2.4	Home Page	74
8.2.5	Events	75
8.2.6	Other Events	76
8.2.7	Menu Packages	77
8.2.8	Predefined Package and Customized Package	77
8.2.9	User Information	78
8.2.10	Order Receipt	79
8.2.11	Payment	80
8.2.12	Forgot Password	81
8.2.13	About Us and Contact Us	81
8.2.14	Gallery	82
8.2.15	Feedback	83
8.2.16	Location	84
8.2.17	Cancel Order	85
<b>9.</b>	<b>LIMITATION AND FUTURE ENHANCEMENT</b>	<b>86</b>
9.1	Limitation of E-Fiesta Application	87
9.2	Future Enhancement of E-Fiesta Application	87
<b>10.</b>	<b>CONCLUSION</b>	<b>88</b>
	<b>REFERENCES</b>	<b>89</b>

## **ACKNOWLEDGEMENT**

We are so glad to take this opportunity to express my heartfelt gratitude towards Silver Oak College of Engineering And Technology, for giving us an opportunity to develop this project and all possible help they have given.

We would like to give sincere thanks to **Prof. Satvik Khara, Head of C.E. Department** who gave us an opportunity to get Industrial Training in our last year. First, we would like to thank Director of **I-VERVE INFOWEB PVT. LTD. Mr. Nayan Mistry**, for providing me an opportunity to undergo training during last year.

We want to sincerely thank **Mr. Kartik Bhadoriya**(External guide) and **Ms. Khyati Patel** (Internal guide), who gave us valuable guidance during the project.

- Aishwarya N Iyer  
(120770107009)

- Gayathree N Iyer  
(120770107042)

## **ABSTRACT**

*This app is very useful to the users who are going to arrange a party, marriage, birthday celebration, reception, etc. User need not approach the caterers at his office. Instead, users can see the food items and make a package of food items. This app is also useful to determine the number of people required to serve the food at a particular event. 'Fiesta' stands for celebration.*

*User can see predefined packages and order that. There is a facility of customization of the package wherein users can decide a package. User can give feedback, complaint, suggestion to the catering company. User can see his past orders.*



## **LIST OF TABLES**

<b>Table No.</b>	<b>Title</b>	<b>Page No.</b>
2.1	PROJECT SCHEDULE	9
2.2	MILESTONES AND DELIVERABLES	11
2.3	ROLES AND RESPONSIBILITIES	12
2.4	PROJECT RISK	14
2.5	RISK ANALYSIS	15
2.6	RISK PLANNING	16
4.1	DATA DICTIONARY FOR REGISTRATION	39
4.2	DATA DICTIONARY FOR LOGIN	40
4.3	DATA DICTIONARY FOR ORDER	40
4.4	DATA DICTIONARY FOR EVENT	40
4.5	DATA DICTIONARY FOR FOOD ITEM	40
4.6	DATA DICTIONARY FOR SERVERS	40
4.7	DATA DICTIONARY FOR PAYMENT	41
5.1	ORDER RECEIPT	48
5.2	FEEDBACK	48

## **LIST OF FIGURES**

<b>Figure No.</b>	<b>Title</b>	<b>Page No.</b>
1.1	FRAMEWORK	4
2.1	ITERATIVE WATERFALL MODEL	7
2.2	PIE CHART	9
2.3	ROLES AND RESPONSIBILITIES	11
2.4	GANTT CHART	13
2.5	ESTIMATION CHART	16
4.1	USECASE DIAGRAM FOR USER	33
4.2	USECASE DIAGRAM FOR WEBSERVICE API	34
4.3	SEQUENCE DIAGRAM	35
4.4	SEQUENCE DIAGRAM FOR PAYMENT	36
4.5	CLASS DIAGRAM	37
4.6	ACTIVITY DIAGRAM	38
4.7	ACTIVITY DIAGRAM FOR WEBSERVICEAPI	39
4.8	STATE DIAGRAM	41
4.9	DATA FLOW DIAGRAM (LEVEL-0)	42
4.10	DATA FLOW DIAGRAM (LEVEL-1)	43
5.1	OBJECT MODELLING AND THREE SCHEMA ARCHITECTURE FOR RELATIONAL DBMS	47
5.2	REGISTRATION AND LOGIN	50
5.3	ACCESS CONTROL AND SECURITY	51
5.4	IPHONE ARCHITECTURE	52

8.1	ADMIN SIDE SCREENSHOT	71
8.2	SPLASH SCREEN	72
8.3	LOGIN PAGE	72
8.4	REGISTRATION FORM	73
8.5	HOME PAGE	74
8.6	EVENTS	75
8.7	OTHER EVENTS	76
8.8	MENU PACKAGES	77
8.9	PREDEFINED PACKAGE AND CUSTOMIZED PACKAGE	77
8.10	USER INFORMATION	78
8.11	ORDER RECEIPT	79
8.12	PAYMENT	80
8.13	FORGOT PASSWORD	81
8.14	ABOUT US AND CONTACT US	81
8.15	GALLERY	82
8.16	FEEDBACK	83
8.17	LOCATION	84
8.18	CANCEL ORDER	85

# **CHAPTER- 1**

## **INTRODUCTION**

### **1.1 PURPOSE SUMMARY**

### **1.2 PURPOSE**

### **1.3 SCOPE**

### **1.4 TECHNOLOGY AND LITERATURE REVIEW**

# CHAPTER-1

## **INTRODUCTION**

### **1.1 PROJECT SUMMARY:**

- This iOS app is very useful to the users who are going to arrange a party, marriage, birthday celebration, reception, etc. User need not approach the caterers at his office. Instead, users can see the food items and make a package of food items. This app is also useful to determine the number of people required to serve the food at a particular event.

### **1.2 PURPOSE:**

- User can see predefined packages and order them.
- Customization of the package wherein users can decide a package.
- User can give feedback, complaint, suggestion to the catering company.
- User can see his past orders.

### **1.3 SCOPE:**

- This app allows users to order food items according to a predefined package or a customized package.
- This app also allows users to determine the number of caterers needed to serve the users. This will be determined on the basis of the number of attendees in the event.
- Users can give feedback, suggestions, and complaints through this app. These features make the app highly user friendly.
- Users can also see his past orders which will help them in any modifications.
- Users can find the location of the desired venue through a map.

## **1.4 TECHNOLOGIES AND LITERATURE REVIEW:**

### **• SQLite 3.8.10.2: (BACK END)**

- SQLite package is a software library that implements a self contained, serverless, zero - configuration, transactional SQL Database engine.
- This package is known to build and work properly using an LFS-7.8 platform.
- SQLite is a C library that implements an SQL Database Engine. A large subset of SQL 92 is supported.
- A complete database is stored in a single disk file. The API is designed for convenience and ease of use.
- Applications that link against SQLite can enjoy the power and flexibility of an SQL Database without the administrative hassles of supporting a separate database server.

### **• Interface Builder: (FRONT END)**

- Interface Builder is a software development application for Apple's Mac OS X operating system. It is part of Xcode (formerly Project Builder), the Apple Developer Connection developer's toolset.
- Interface Builder allows Cocoa and Carbon developers to create interfaces for applications using a graphical user interface.
- The resulting interface is stored as a .nib file or .xib file.
- Interface Builder provides collection of user interface objects to an Objective-C developer. These user interface objects contain items like text fields, data tables, sliders and popup menus.
- To build an interface, a developer simply drags interface objects from the collection onto a window or menu. In this way all initialization is done before runtime, both improving performance and streamlining the development process.

### **• Xcode: (TOOL)**

- **Xcode** is an integrated development environment (IDE) containing a suite of software development tools developed by Apple for developing software for OS X and iOS.
- Previously Xcode supported distributing a product build process over multiple systems. One technology involved was called *Shared Workgroup Build*, to automatically discover systems providing compiler services, and a modified version of the free software product distcc to facilitate the distribution of workloads. Earlier versions of Xcode provided a system called *Dedicated Network Builds*. These features are absent in the supported versions of Xcode.

Xcode also includes Apple's Web Objects tools and frameworks for building Java web applications and web services (previously sold as a separate product). As of Xcode 3.0, Apple dropped WebObjects development inside Xcode.



**Fig 1.1 : FRAMEWORK**

## **CHAPTER-2**

### **PROJECT MANAGEMENT**

#### **2.1 PROJECT PLANNING AND SCHEDULING**

2.1.1 Project Development Approach

2.1.2 Project Planning

2.1.3 Schedule Representation

#### **2.2 RISK MANAGEMENT**

2.2.1 Risk Identification

2.2.2 Risk Analysis

2.2.3 Risk Planning

#### **2.3 ESTIMATION**

2.3.1 Effort Estimation

2.3.2 Cost Analysis

2.3.3 Cost Estimation



## **CHAPTER 2**

# **PROJECT MANAGEMENT**

Project management is the discipline of planning, organizing and managing resources to bring about the successful completion of specific project goals and objectives.

A project is a finite endeavor (having specific start and completion dates) undertaken to create a unique product or service which brings about beneficial change or added value create a unique product or service which brings about beneficial change or added value.

The primary challenge of project management is to achieve all of the project goals and objectives while honoring the project constraints. Typical constraints are scope, time and budget. The secondary and more ambitious challenge is to optimize the allocation and integration of inputs necessary to meet pre-defined objectives.

### **2.1 PROJECT PLANNING AND SCHEDULING**

Project planning is part of project management, which relates to the use of schedules such as Gantt charts to plan and subsequently report progress within the project environment.

Initially, the project scope is defined and the appropriate methods for completing the project are determined. Following this step, the durations for the various tasks necessary to complete the work are listed and grouped into a work breakdown structure. Project planning is often used to organize different areas of a project, including project plans, workloads and the management of teams and individuals. The logical dependencies between tasks are defined using an activity network diagram that enables identification of the critical path. Float or slack time in the schedule can be calculated using project management software. Then the necessary resources can be estimated and costs for each activity can be allocated to each resource, giving the total project cost.

#### **2.1.1 PROJECT DEVELOPMENT APPROACH**

##### **Software Process Model**

To solve actual problems in an industry, software developer must incorporate a development strategy that encompasses the process, methods and tools layers and generic phases.

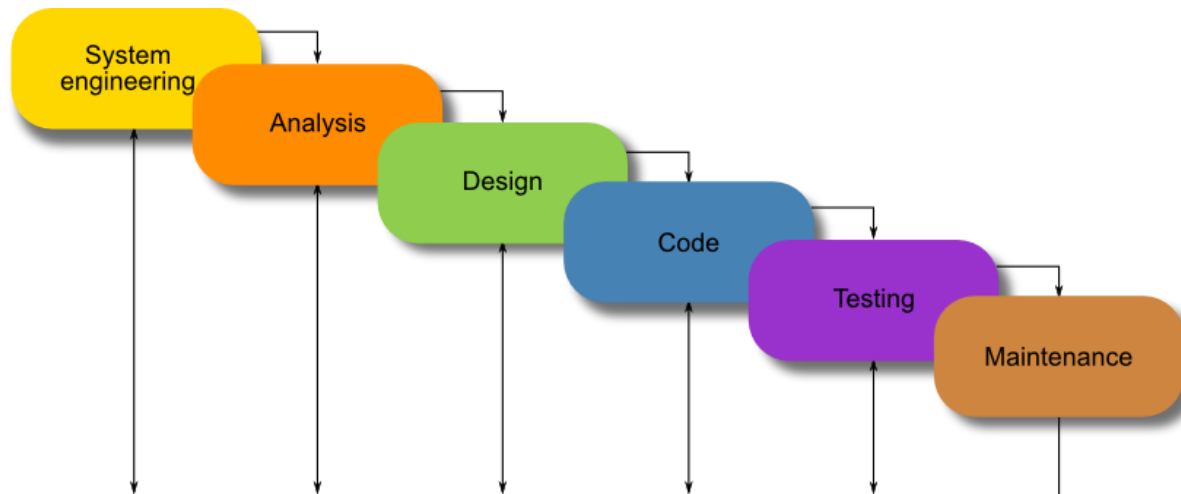
This strategy is often referred to as process model or a software developing paradigm.

A process model for software developing is chosen based on the nature of project and application, the methods and tools to be used, and the controls and deliverables that are required.

Regardless of the process model that is chosen for a software project all of the stages co-exist simultaneously at some level of details.

### **Iterative Water Fall Model:-**

The basic idea behind this method is to develop a system through repeated cycles (iterative) and in smaller portions at a time (incremental), allowing software developers to take advantage of what was learned during development of earlier parts or versions of the system. Learning comes from both the development and use of the system, where possible key steps in the process start with a simple implementation of a subset of the software requirements and iteratively enhance the evolving versions until the full system is implemented. At each iteration, design modifications are made and new functional capabilities are added.



**Fig 2.1: Iterative Water Fall Model**

The procedure itself consists of the initialization step, the iteration step, and the Project Control List. The initialization step creates a base version of the system. The goal for this initial implementation is to create a product to which the user can react. It should offer a sampling of the key aspects of the problem and provide a solution that is simple enough to understand and implement easily. To guide the iteration process, a project control list is created that contains a record of all tasks that need to be performed. It includes such items as new features to be

implemented and areas of redesign of the existing solution. The control list is constantly being revised as a result of the analysis phase.

The iteration involves the redesign and implementation of iteration is to be simple, straightforward, and modular, supporting redesign at that stage or as a task added to the project control list. The level of design detail is not dictated by the iterative approach. In a light-weight iterative project the code may represent the major source of documentation of the system; however, in a critical iterative project a formal Software Design Document may be used. The analysis of iteration is based upon user feedback, and the program analysis facilities available. It involves analysis of the structure, modularity, usability, reliability, efficiency, & achievement of goals. The project control list is modified in light of the analysis results.

**Advantages:-**

- Results are obtained early and periodically.
- Parallel development can be planned.
- Progress can be measured.
- Risk analysis is better.

**Disadvantages:**

- More resources may be required.
- Complexity is more.

### 2.1.2 **PROJECT PLANNING**

The software project management process begins with the set of activities that are collectively called project planning. The objective of software planning is to provide a framework that enables administrator to make reason able estimates of resources, cost and schedule.

TASK	FROMDATE	TO DATE
REQUIREMENT GATHERING AND ANALYSIS	16/01/2015	24/01/2015
PROTOTYPE PREPARATION	25/01/2015	14/02/2015
UIDESIGN ANDDATABASEDE SIGN	11/02/2015	18/02/2015
CODING	19/02/2015	18/03/2015
TESTING AND INTEGRATION	19/03/2015	25/03/2015
IMPLEMENTATION	26/03/2015	28/03/2015

Table 2.1 : Table of project schedule.

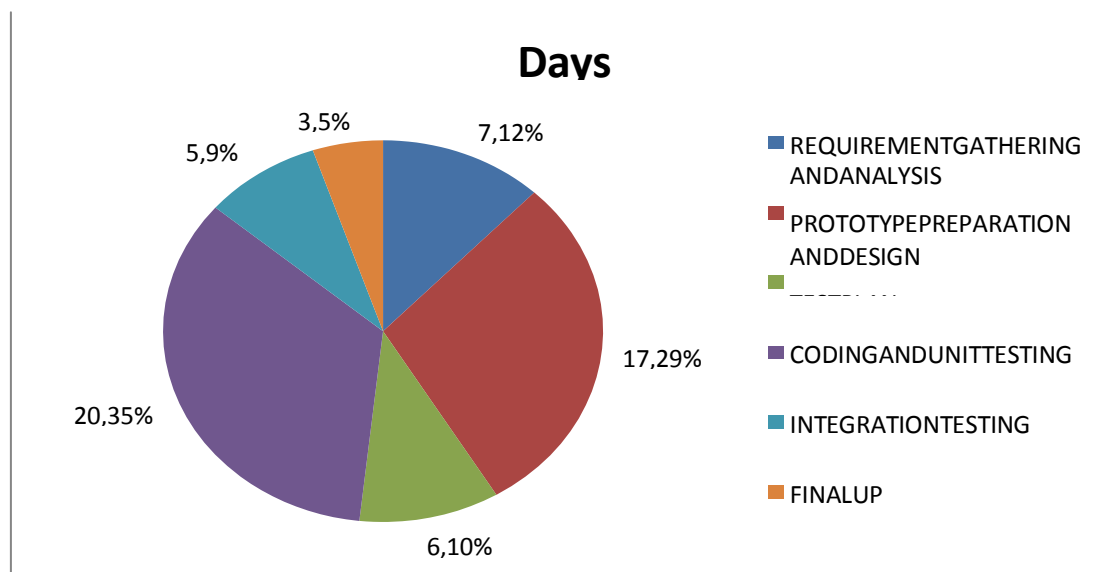


Fig 2.2: Pie chart

## • **MILESTONES AND DELIVERABLES**

Management needs information. As software is intangible, this information can only be provided as documents that describe the state of software being developed. Without this information, it is impossible to judge progress and cost estimates and schedules cannot be updated.

**Milestones:** Milestone is an end-point of the software process activity.

- At each milestone there should be formal output, such as report, that can be represented to the management.
- Milestone report need not be large document; they are the short report of achievements on software project activity.
- Milestone represents the end of the distinct, logical stage in the project.

**Deliverable:** Deliverable is a project report that is delivered to the customer.

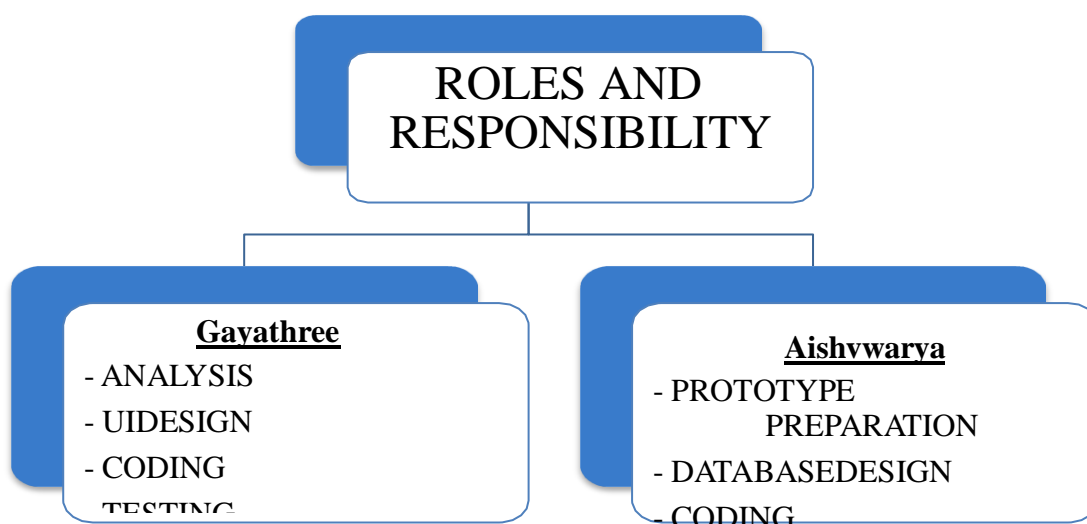
- Deliverables are delivered to the customers at the end of some major project phase such as specification, design, etc.
- Deliverables are usually milestones.
- Milestones may be internal project results that are used by the project manager to check progress but which are not delivered to the customer.

SOFTWARE PROCESS ACTIVITY	MILESTONE
Requirement Analysis	User requirement , Schedule , Flow
Design 1. GUI 2. Database	System Design Document, Codes, Validations
Testing	Identification of bugs and recovery
Implementation	Access rights

**Table 2.2 : Milestones and Deliverables.**

Each milestone should give formal output that can represent management. Milestones are used by project managers to check the progress.

## • **ROLES AND RESPONSIBILITIES**



**Fig 2.3 : Roles and Responsibilities.**

TASK	PERSONNAME
REQUIREMENT ANALYSIS	Gayathree (12CE42)
PROTOTYPE PREPARATION	Aishwarya (12CE09)
UI DESIGN	Gayathree (12CE42)
DATABASE DESIGN	Aishwarya (12CE09)
CODING	Aishwarya (12CE09) , Gayathree (12CE42)
TESTING	Aishwarya (12CE09) , Gayathree (12CE42)

**Table 2.3 : Roles and Responsibilities.**

### 2.1.3 SCHEDULE REPRESENTATION

The project will be completed within time & all the work will be completed in time. Project will complete in four different phase among which analysis, designing, coding, testing are the prime phases.

- **Analysis Phase:-**

Analysis phase includes gathering of information in intensified & focused specifically on software. Requirements for both system and the software are documented & reviewed with the customers. Analysis phase is more convenient & it is very helpful for other phases.

- **Design Phase:-**

Designing phase includes multistep process that focuses on four distinct attributes of a program: data structures, software design, interface representation, procedural details. The design process translates requirements into a representation of the software that can be accessed for quality before coding begins.

Design phase is very important phase:

- How can we attract users?
- How can we provide functionalities & attachments?

- **Coding Phase:-**

Coding phase includes design that must be translated into a machine-readable form.

- **Testing Phase:-**

Testing phase focuses on the logical internals of the system, ensuring that all statements have been tested, and on the functional externals, conducting test to uncover errors and ensure that defined inputs will produce actual results that agree with required results.

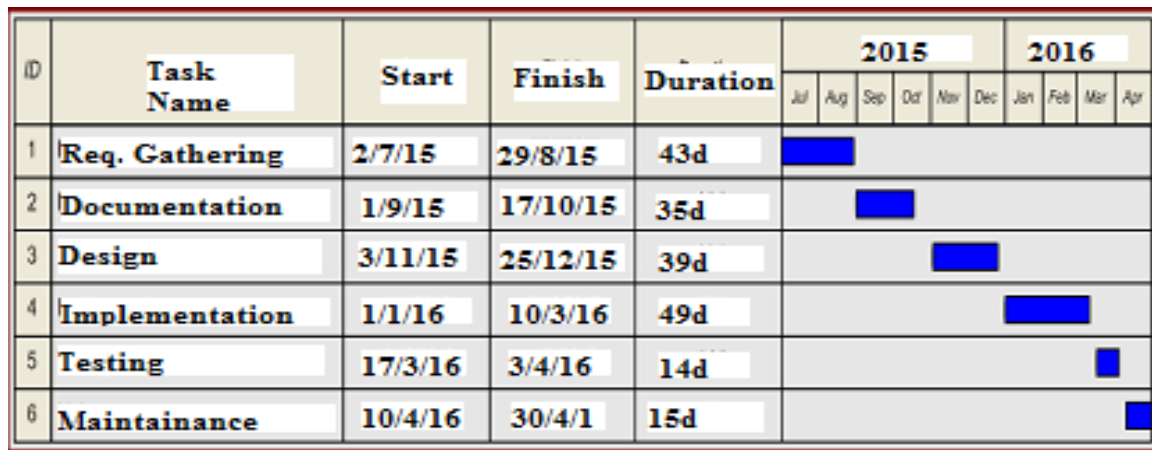


Fig2.4: Gantt chart

## 2.2 RISK MANAGEMENT

Risk management is the identification, assessment, and prioritization of **RISKS**(defined in **ISO 31000** as the effect of uncertainty on objectives, whether positive or negative) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities.

### 2.2.1 RISK IDENTIFICATION

- After establishing the context, the next step in the process of managing risk is to identify potential risks. Risks are about events that, when triggered, cause problems. Hence, risk identification can start with the source of problems, or with the problem itself.
- Risk Identification is very important process of Risk Management.



- There are three type of risks

1) Technical Risk. 2) Tools Risk. 3) People Risk.

For Industry Manufacturing Process Software I identify the risks Server Failure, Broken Link in the technical type Risk, the internet connection Problem, Data leaking and Garbage Collection in the Tools Risk & failure of administration and leaking of data in People Risk.

Risk Name	Risk Type
Power off	Tool risk
Connection error	Technical risk
Leaking of data	People risk
Failure of administration	Technical risk
Broken link	Tool risk
Database Corrupt	People risk

**Table 2.4 : Table of project Risk.**

### **2.2.2 RISK ANALYSIS**

Risk management is the identification, assessment, and prioritization of **RISKS** (defined in **ISO 31000** as the effect of uncertainty on objectives, whether positive or negative) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities.

#### **Preliminary Risk Assessment**

The Preliminary Risk Assessment (PRA) is a structured meeting between senior business, operations, marketing and systems managers. The PRA's purpose is to highlight for further analysis, the key risk issues and areas facing the business unit.

E-commerce risk is categorized in terms of risk target (where the risk occurs) and risk-type (Information Risk, Technology Risk, or Business Risk). The PRA focuses on outcomes based on errors, omissions, structural weaknesses, and deliberate acts.

The resulting grid generates "target-risk combinations". The risk assessment involves the senior business manager's providing a risk rating for each target-outcome combination, given existing controls. Highly rated risks (on a 1-5 scale) include an explanation for why the rating was applied.

### Detailed Risk Assessment

In the Detailed Risk Assessment (DRA) the project team develops detailed risk scenarios for each highly rated PRA target-outcome combination. The bases for the DRA are scenarios based on the risks enumerated in above section. The DRA procedure is sequential includes:

Meetings with managers from target areas to gain insights regarding risk scenarios;

- Brainstorming sessions and follow-up reviews to identify potential scenarios;
- Rating the scenarios regarding risk on a 1 to 5 scale;
- Identifying potential controls;
- Selecting controls to be implemented.

In this process, DRA risk ratings need not reflect the PRA target-risk combination rating. Cursory cost-benefit analysis often is sufficient to select or discard controls. Formal decision analysis is usually unnecessary and may be problematic.

### Controls Implementation

In Controls Implementation the senior managers who participated in the PRA review the study findings and recommendations. Recommended controls frequently close security gaps for "high risk" scenarios, reduce risk exposure at minimal cost, or scrap obsolete controls which are holdovers from previous years and now address non-existent risks. Actually implementing the recommended controls is the methodology's final phase.

Risk Type	Risk Causes	Priority	Effect
Battery low	Error in battery.	Low	Customer can't use the application.
Connection error	Lower quality of ISP	Low	Can't access that particular application
Leaking of data	Less security, hacking.	High	Can't manage the properly the system.
Failure of administration	Less security in login authentication.	High	Can fail the product
Broken link	Not proper coding.	Medium	User can not access the particular module directly.
Database Corrupt	Large data added.	High	Security will in the risk

**Table 2.5 : Risk Analysis**

### 2.2.2 RISK PLANNING

Risk Name	Risk Mitigations
Power off	Power Bank based Power supply
Connection error	Use better ISP
Leaking of data	Provide security to fetch The data.
Failure of administration	Provide the security.
Broken link	Provide proper coding.
Database Corrupt	Provide security through frequently back-up.

**Table 2.6 : Risk Planning**

## 2.3 ESTIMATION

### 2.3.1 EFFORT ESTIMATION

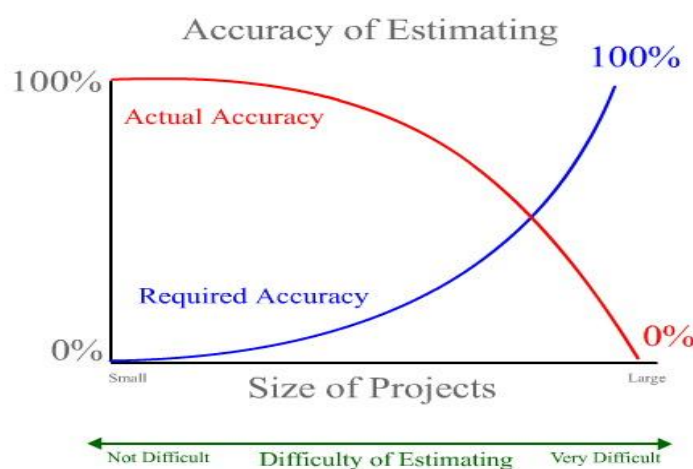
Many software managers struggle with estimating projects. As can be seen from the following chart, the inherent problem with estimating is that small projects can be very easy to estimate, but the required accuracy is not important. On the other hand, large projects are very difficult to estimate, but the required accuracy is very important.

**Estimated Effort**=(System Size)/Productivity Rate

Where, System Size=Lines OF Code(KLOC)

Productivity rate=KLOC/Day

Productivity rate==(System Size)/effort



**Fig2.5: Estimation Chart**

**Effort Estimation includes,**

The estimates and actual of size and effort are plotted as two different series. First, a linear trend line was fitted for the complete set of data for which we have both Project estimates and actual.

For software of size less than 20K LOC actual effort is either fairly accurately predicted or it is underestimated. For software of size 20K LOC or greater, the estimations of effort have been overestimated. This deviation becomes progressively larger as software size increases (See Figure (E)). If for the same data set a nonlinear trend is fitted to the estimates and actual we find that all estimates would underestimate the actual effort required to complete the projects.

I have used COCOMO model. The COCOMO model followed here to develop the application aims at cost effective budget. The targeted application aims at the common men who neither is techno savvy nor will be interested to buy expensive applications. I use semidetached type cocomo model.

COCOMO model is used for Cost Analysis.

Basic model is ---->“Organic”.

Assumption of LOC = 5500

$$\text{Effort}(E) = {}^a_b(\text{KLOC})^{bb}$$

$$= 2.4(5.5)^{1.05}$$

$$= 14 \text{ person-month}$$

$$\text{Duration Time (D)} = {}^c_b(\text{Effort})^{db}$$

$$= 2.5(19.907905)^{0.38}$$

$$= 7 \text{ month}$$

$$\text{PERSON (P)} = \text{EFFORT} / \text{DURATION TIME}$$

$$= 14 / 10$$

$$= 1.4 = 1 \text{ person}$$

**2.3.2 COST ANALYSIS**

**Cost Analysis Definition:** Identification of current and anticipated costs associated with operating a Service Center with an examination of the impact of those costs on setting Service Center rates with the anticipation to break-even (i.e. Revenue = Expenses) at the end of each fiscal year.

**Elements of a Cost Analysis**

- Costs
- Volume
- Market
- Rates
- Assumptions
- Constraints

**2.3.3 COST ESTIMATION**

For finding the total cost of the project we need to find the total lines of code of the system.

**Estimation of LOC**

- Module1: 300
- Module2: 300
- Module3 : 280
- Module4 : 100
- Module5 : 400
- Total LOC =1380(1.38K)

We have used Semi-detached mode for development so we will consider the values of a, b, c, d as given for Semi-detached mode.

**Values for Semi-detached mode.**

- a=3.0
- b =1.12
- c=2.5
- d =0.35

Putting values in above formulas.

- **Efforts applied**  
 $3.0 * (1.38^{1.12}) = 4.303 \text{ person-months}$
- **Development time**  
 $2.5 * (1.38^{0.35}) = 2.798 \text{ months}$
- **People Required**  
 $4.303 / 2.798 = 1.57 = 2 \text{ persons}$

**COST**

- The average productivity for our product is : (LOC/ per month)
- The labor charges estimated is : ( per month) : 4.303
- Thus the cost per line of code is :(approximately)7000
- Hardware cost:6000
- Total estimated project cost is =15000

## **CHAPTER-3**

### **SYSTEM REQUIREMENT STUDY**

#### **3.1 USER CHARACTERISTICS**

#### **3.2 HARDWARE AND SOFTWARE REQUIREMENT**

#### **3.3 CONSTRAINTS**

- 3.3.1 User Interface
- 3.3.2 Communication Interface
- 3.3.3 Hardware Interface
- 3.3.4 Software Interface
- 3.3.5 General Constraints
- 3.3.6 Assumptions

## **CHAPTER 3**

### **SYSTEM REQUIREMENT STUDY**

#### **3.1 USER CHARACTERISTICS:**

- ❖ There will be mainly two types of users:-
- **User** :- The participants will logon to the App and select predefined food package or make a customized food package. Also, users can order for the number of servers required to serve the food items and select a preferable venue for the event. Users can give feedback, suggestions, complaints, etc.
- **Admin** :- Verification of user , maintaining database, updating database,
  - Updating preferences, managing interfaces and advertisements.

#### **3.2 HARDWARE AND SOFTWARE REQUIREMENTS:**

##### Hardware Requirement

- Mobile OS: iOS/ iPHONE
- 20 MB free space to run an application
- RAM : 512 MB RAM (minimum)

##### Software Requirement

- Programming language: Objective- C
- Front End: Interface Builder
- Back End: SQLite 3.8.10.2
- Xcode 7 toolkit



### **3.3 CONSTRAINTS**

#### **3.3.1 User Interface:**

The User-Interface is with a iPhone application with GUI interaction only in English language. There can be multiple users of the application at a time. When the project is run for the first time, the user needs to register with the application, after logging to the system, the project successfully commences.

#### **3.3.2 Communications Interfaces:**

The iPhone application has a communication via internet. System users can have an interaction to the application from anywhere in the world with the internet connectivity and sufficient privileges to access the iPhone application as a authenticate user.

#### **3.3.3 Hardware Interface:**

The iPhone application with internet connectivity works best on iPhone /iOS, 20mb free space to run the application.

#### **3.3.4 Software Interface:**

The application will be interacting after development with operating system to develop a system with above mentioned requirements in stipulated period of around 5 months is a major time constraints. In this time frame is all software engineering activities are to be done including testing.

#### **3.3.5 General Constraint:**

The only constraint coming in the way from system users to use this specific application is that the knowledge of English language and with working knowledge of navigating the iPhone application. In our Web based demo system we add validation criteria in all the different information some of them describe here.

1. Login username & password
2. Zip code must be numeric
3. Email address must be in specific format
4. User name must be unique

#### **3.3.6 ASSUMPTIONS**

Every person should own an iPhone/ iOS device to use this application and should have basic knowledge about using an iPhone/ iOS phone.

## **CHAPTER-4**

### **SYSTEM ANALYSIS**

#### **4.1 STUDY OF CURRENT SYSTEM**

#### **4.2 PROBLEMS AND WEAKNESSES OF CURRENT SYSTEM**

#### **4.3 REQUIREMENT OF NEW SYSTEM**

4.3.1 Functional Requirements

4.3.2 Non Functional Requirements

#### **4.4 FEASIBILITY STUDY**

4.4.1 Technical Feasibility

4.4.2 Operational Feasibility

4.4.3 Economical Feasibility

#### **4.5 REQUIREMENTS VALIDATION**

#### **4.6 FUNCTIONS OF SYSTEM**

4.6.1 Use Case Diagram

4.6.2 Sequence Diagram

#### **4.7 DATA MODELING**

4.7.1 Class Diagram

4.7.2 Activity Diagram

4.7.3 Data Dictionary

#### **4.8 STATE DIAGRAM**

#### **4.9 DATA FLOW DIAGRAM**

#### **4.10 MAIN MODULES OF NEW SYSTEM**

#### **4.11 SELECTION OF HARDWARE AND SOFTWARE**

## **CHAPTER 4**

### **SYSTEM ANALYSIS**

#### **Definition:**

System Analysis is the detailed study of the various operations performed by the system and their relationships within and outside the system. Analysis is the process of breaking something into its parts so that the whole may be understood. System analysis is concerned with becoming aware of the problem, analyzing and synthesizing the various factors and determining an optional or at least a satisfactory solution. During this a problem is identified, alternate system solutions are studied and recommendations are made about committing the resources used to the system.

#### **4.1 STUDY OF CURRENT SYSTEM**

Currently there is no such application in the iPhone/ iOS market but there are a few web based applications. So we are trying to find out the strengths and weakness of those applications and modify as much in a better way as we can.

This app is very useful to the users who are going to arrange a party, marriage, birthday celebration, reception, etc. User need not approach the caterers at his office. Instead, users can see the food items and make a package of food items. This app is also useful to determine the number of people required to serve the food at a particular event.

- User can see predefined packages and order that.
- Customization of the package wherein users can decide a package.
- User can give feedback, complaint, suggestion to the catering company.
- User can see his past orders.

#### **4.2 PROBLEMS AND WEAKNESSES OF CURRENT SYSTEM:**

- The existing system is manual system. Needs to be converted into automated system.
- Risk of mismanagement of data.
- Less Security.
- No proper coordination between different Applications and Users.
- Fewer Users - Friendly.
- Accuracy not guaranteed.

## **SOLUTION OF THESE PROBLEMS**

The development of the new system contains the following activities, which try to automate the entire process keeping in view of the database integration approach.

1. User friendliness is provided in the application with various controls.
2. The system makes the overall project management much easier and flexible.
3. There is no risk of data mismanagement at any level while the project development is under process.
4. It provides high level of security with different level of authentication.

## **4.3 REQUIREMENT OF NEW SYSTEM**

### **4.3.1. Functional Requirements:**

**Some basic functional requirements:**

- Functional Requirements :
  - ✓ iPhone/ iOS
  - ✓ Processor: Dual core A4 or A5.
  - ✓ Chipset: Apple A6/A8.
- System Memory (RAM) : 50MB or more (required by application).
- Storage: Free space for about 2 Mb.
- Internet access.
- Wi-Fi Enabled Device

### **Output Design:**

Outputs from computer systems are required primarily to communicate the results of processing to users. They are also used to provide a permanent copy of the results for later consultation.

The various types of outputs in general are:

- User's main interface with the computer.
- Operational outputs whose use is purely within the computer department.

### **Output Definitions:**

The outputs should be defined in terms of the following points:

- Type of the output
- Content of the output
- Format of the output
- Location of the output
- Frequency of the output
- Volume of the output
- Sequence of the output

In the next stage it is to be decided that which medium is the most appropriate for the output.

The main considerations when deciding about the output media are:

- The suitability for the device to the particular application.
- The response time required
- The software and hardware available.

Keeping in view the above description the project is to have outputs mainly coming under the category of internal outputs. The main outputs desired according to the requirement specification are:

The outputs were needed to be generated as a hot copy and as well as queries to be viewed on the screen. Keeping in view these outputs, the format for the output is taken from the outputs, which are currently being obtained after manual processing. The standard printer is to be used as output media for hard copies.

### **Input Design:**

Input design is a part of overall system design. The main objective during the input design is as given below:

To produce a cost-effective method of input.

To achieve the highest possible level of accuracy.

To ensure that the input is acceptable and understood by the user.

### **Input Stages:**

The main input stages can be listed as below:

Data recording

Data transcription

Data conversion

Data verification

Data control

Data transmission

Project Report

Data validation

Data correction

### **Input Types:**

It is necessary to determine the various types of inputs. Inputs can be categorized as follows:

External inputs, which are prime inputs for the system.

Internal inputs, which are user communications with the system.

Operational, which are computer department's communications to the system?

### **Input Media:**

This stage choice has to be made about the input media. To conclude about the input media consideration has to be given to:

- Type of input
- Flexibility of format
- Speed
- Accuracy
- Verification methods
- Rejection rates
- Ease of correction
- Storage and handling requirements
- Security
- Easy to use
- Portability

Keeping in view the above description of the input types and input media, it can be said that most of the inputs are of the form of internal and interactive. As Input data is to be the directly keyed in by the user, the keyboard can be considered to be the most suitable input device.

### **4.3.2. Non Functional Requirements:**

#### **Performance Requirements:**

Performance is measured in terms of the output provided by the application. Requirement specification plays an important part in the analysis of a system. Only when the requirement specifications are properly given, it is possible to design a system, which will fit into required environment. It rests largely in the part of the users of the existing system to give the requirement

specifications because they are the people who finally use the system. This is because the requirements have to be known during the initial stages so that the system can be designed according to those requirements. It is very difficult to change the system once it has been designed and on the other hand designing a system, which does not cater to the requirements of the user, is of no use.

The requirement specification for any system can be broadly stated as given below:

The system should be able to interface with the existing system

The system should be accurate

The system should be better than the existing system The existing system is completely dependent on the user to perform all the duties

**The system will maintain Database.**

- **Description**
  - The system will maintain list of food packages ( both customized and pre-defined).
- **Criticality**
  - High.
- **Technical issues**
  - Access to a data repository is essential to accomplish this.
- **Cost and schedule**
  - This is an important requirement and should therefore constitute as much as 10% of the code development time and cost.
- **Risks**
  - This requirement is crucial to the entire project's success.

**The system will display preferences.**

- **Description**
  - The system will display available preferences for the user to choose from.
- **Criticality**
  - High.
- **Technical issues**
  - Access to a data repository is essential to accomplish this.

- **Cost and schedule**

- This should constitute as much as 5% of the code development time and cost.
- Risks
- None.

**The system will store registered users data.**

- **Description**

- The system will store registered user data.

- **Criticality**

- High.

- **Technical issues**

- Access to a data repository is essential to accomplish this.

- **Cost and schedule**

- This is a primary requirement and should therefore constitute as much as 25% of the code development time and cost.

- **Risks**

- None

#### **4.4 FEASIBILITY STUDY:**

Preliminary investigation examines project feasibility the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time.

There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operation Feasibility
- Economical Feasibility

##### **4.4.1 Technical Feasibility**

The technical issue usually raised during the feasibility stage of the investigation includes the following:



- Does the necessary technology exist to do what is suggested?
- Do the proposed equipments have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?
- Are there technical guarantees of accuracy, reliability, ease of access and data security?

Earlier no system existed to cater to the needs of ‘Secure Infrastructure Implementation System’. The current system developed is technically feasible. It is a web based user interface for audit workflow. Thus it provides an easy access to the users. Permission to the users would be granted based on the roles specified. Therefore; it provides the technical guarantee of accuracy, reliability and security. The software and hardware requirements for the development of this project are not many and are already available in-house at NIC or are available as free as open source. The work for the project is done with the current equipment and existing software technology.

Necessary bandwidth exists for providing a fast feedback to the users irrespective of the number of users using the system.

#### **4.4.2. Operational Feasibility**

Proposed projects are beneficial only if they can be turned out into information system. That will meet the organization’s operating requirements.

Some of the important issues raised are to test the operational feasibility of a project includes the following: -

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and Implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

Beforehand, the management issues and user requirements have been taken into consideration. So there is no question of resistance from the users that can undermine the possible application benefits. The well-planned design would ensure the optimal utilization of the computer resources and would help in the improvement of performance status.

#### **4.4.3. Economic Feasibility**

A system can be developed technically and that will be used if installed must still be a good investment for the organization. In the economical feasibility, the development costing creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

The system is economically feasible. It does not require any addition hardware or software. Since the interface for this system is developed using the existing resources and technologies available at NIC, There is nominal expenditure and economical feasibility for certain.

#### **4.5 REQUIREMENTS VALIDATION**

Requirements validation is concerned with showing that the requirements actually define the system which the user wants. All forms, menus should be standardized i.e. all forms have a standard way of accepting inputs from the users and giving message to the users. The system validate the all standard input form validations required to be done in name , username , password ,email , date of order, date of event, etc..

##### **Signup**

- Name
- Email Id

##### **User Details**

- User id
- First name
- Last name
- Gender
- DOB
- Email
- Address

Some of them are described here:

1. There will be a validation for checking whether all entities are filled or not.
2. Display date and time of event must be in specific format.
3. E-mail must be written in specific formats.
4. Address of the venue must be accurate.

## 4.6 FUNCTIONS OF SYSTEM

### 4.6.1 USE CASES, EVENT TRACE OR SCENARIO

- A Use Case diagram in the Unified Modeling Language (UML) is a type of behavioral
- Diagram defined by and created from a use-case analysis. A Use Case diagram for this system is shown in Fig 4.6.1 on the next page.
- Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals (represented as use cases), and any dependencies between those use cases.
- The main purpose of a use case diagram is to show what system functions are performed for which actor. Roles of the actors in the system can be depicted.

#### ❖ Use cases

- A use case describes a sequence of actions that provide something of measurable value to an actor and is drawn as a horizontal ellipse.

#### ❖ Actors

- An actor is a person, organization, or external system that plays a role in one or more interactions with the system.

#### ❖ System boundary boxes (optional)

- A rectangle is drawn around the use cases, called the system boundary box, to indicate the scope of system. Anything within the box represents functionality that is in scope and anything outside the box is not.
- Four relationships among use cases are used often in practice :
  - ✓ Include
  - ✓ Extend
  - ✓ Generalization
  - ✓ Association

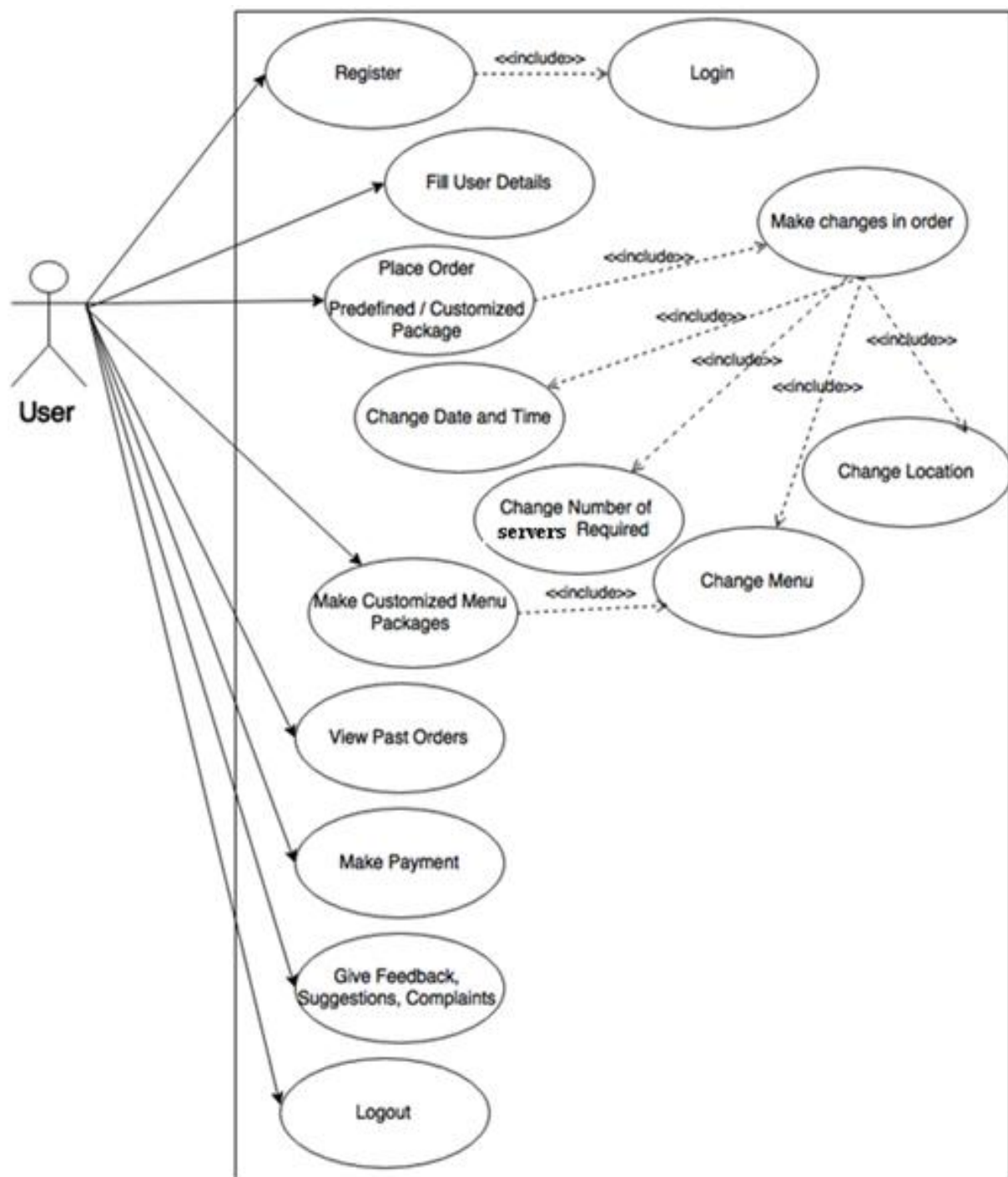
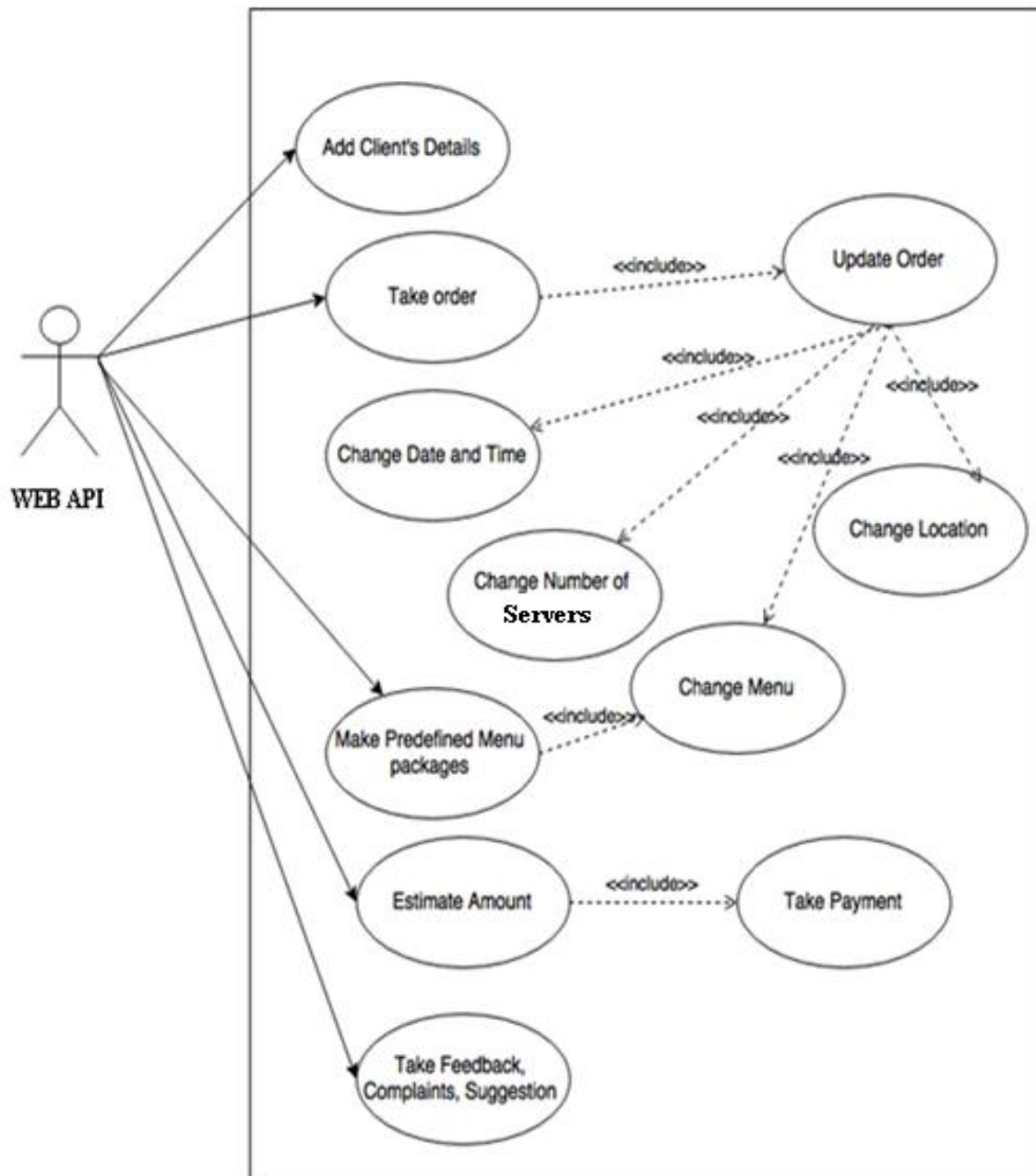


Fig 4.1 Use Case Diagram For User

**USE CASE DIAGRAM FOR THE WEB SERVICE API****Fig 4.2 Use Case Diagram For Web Service API**

#### 4.6.2 SEQUENCE DIAGRAM OF THE SYSTEM

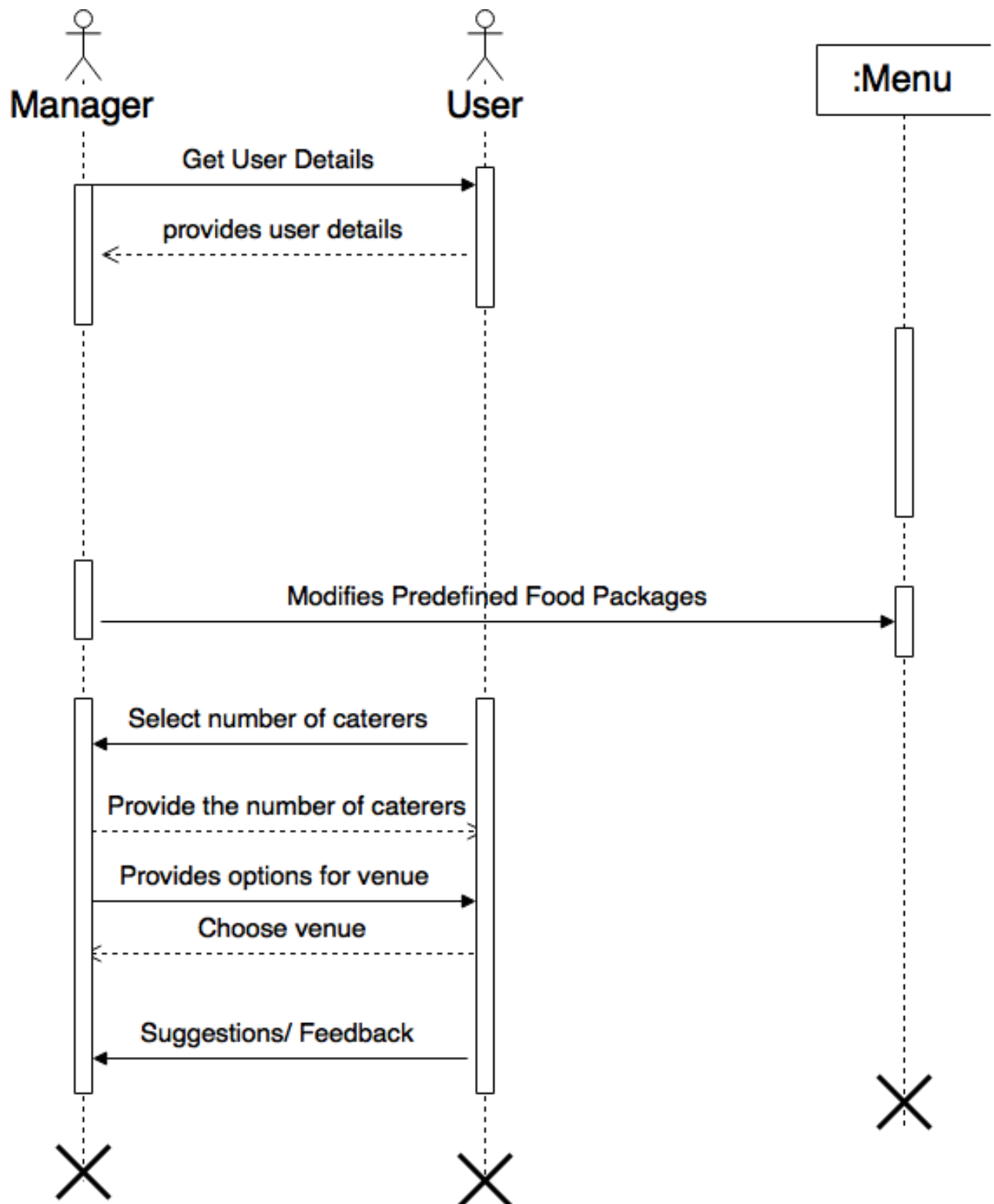


Fig 4.3 Sequence Diagram

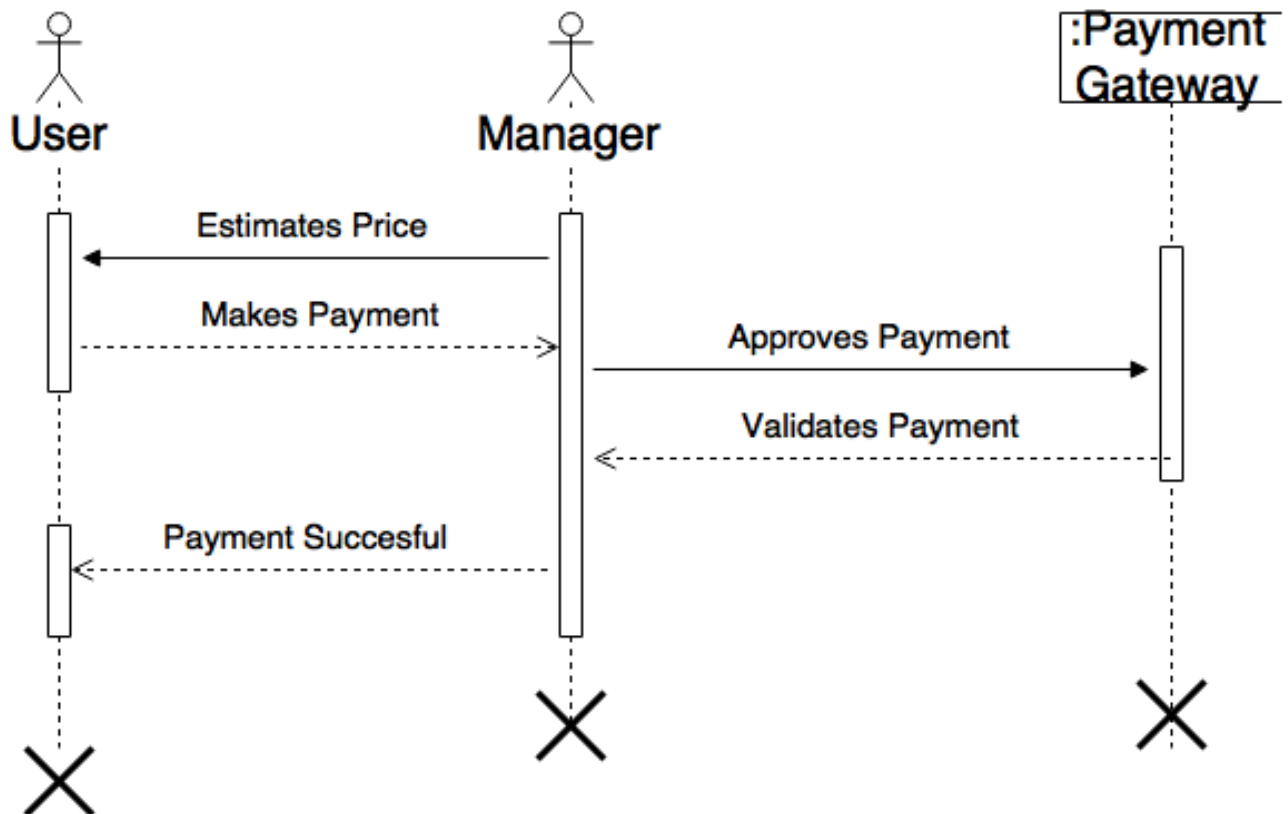


Fig 4.4 Sequence Diagram for payment

## **4.7 DATA MODELING**

### **4.7.1 Class Diagram**

- The class diagram is the main building block of object oriented modeling. It is used both for general conceptual modeling of the Systematic of the application, and for detailed modeling translating the models into programming code.
  - The classes in a class diagram represent both the main objects and or interactions in the application and the objects to be programmed.
  - In the class diagram these classes are represented with boxes which contain three parts or section:
    - ✓ The upper part holds the name of the class
    - ✓ The middle part contains the attributes of the class
    - ✓ The bottom part gives the methods or operations the class can take or undertake
- In the system design of a system, a number of classes are identified and grouped together in a class diagram which helps to determine the static relations between those objects.

- A relationship is a general term covering the specific types of logical connections found on class and objects diagrams. UML shows the following relationships:

#### ❖ Instance Level Relationships

- External Links
- Association
- Aggregation
- Composition (stronger variant of Aggregation)

#### ❖ Class Level Relationships

- Generalization
- Realization

#### ❖ General Relationships

- Dependency
- Multiplicity

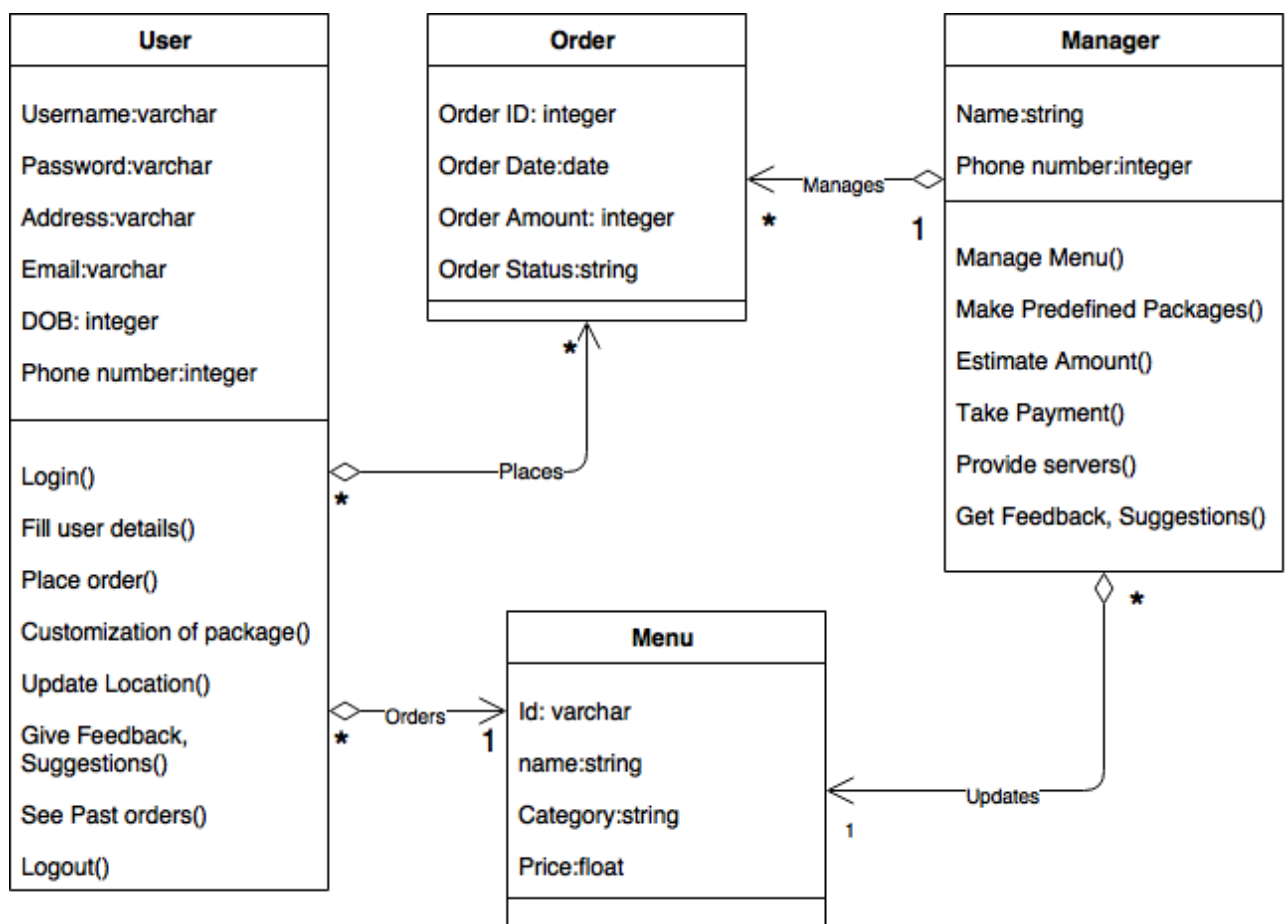
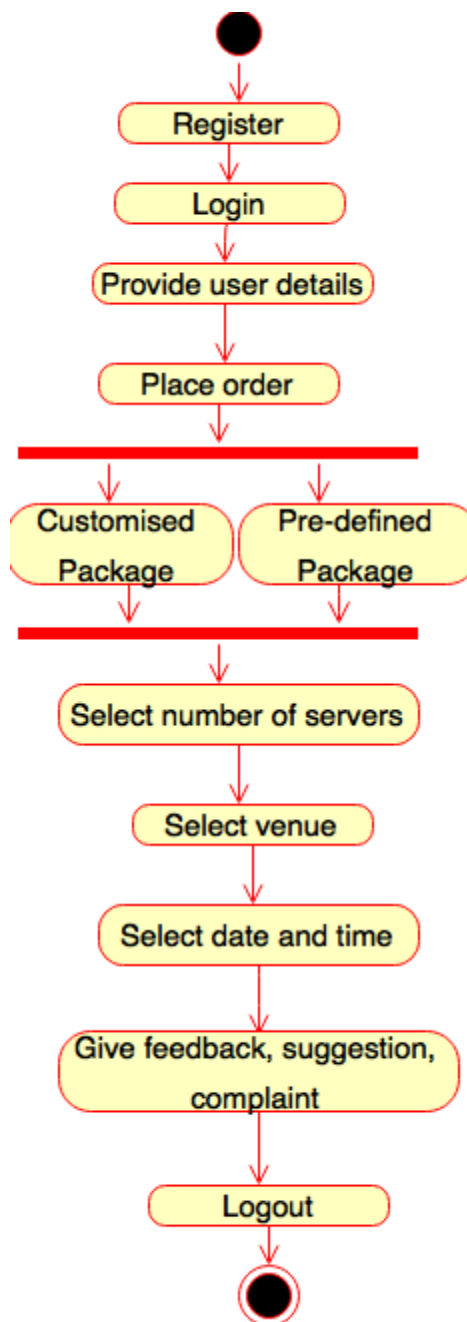


Fig 4.5 Class Diagram



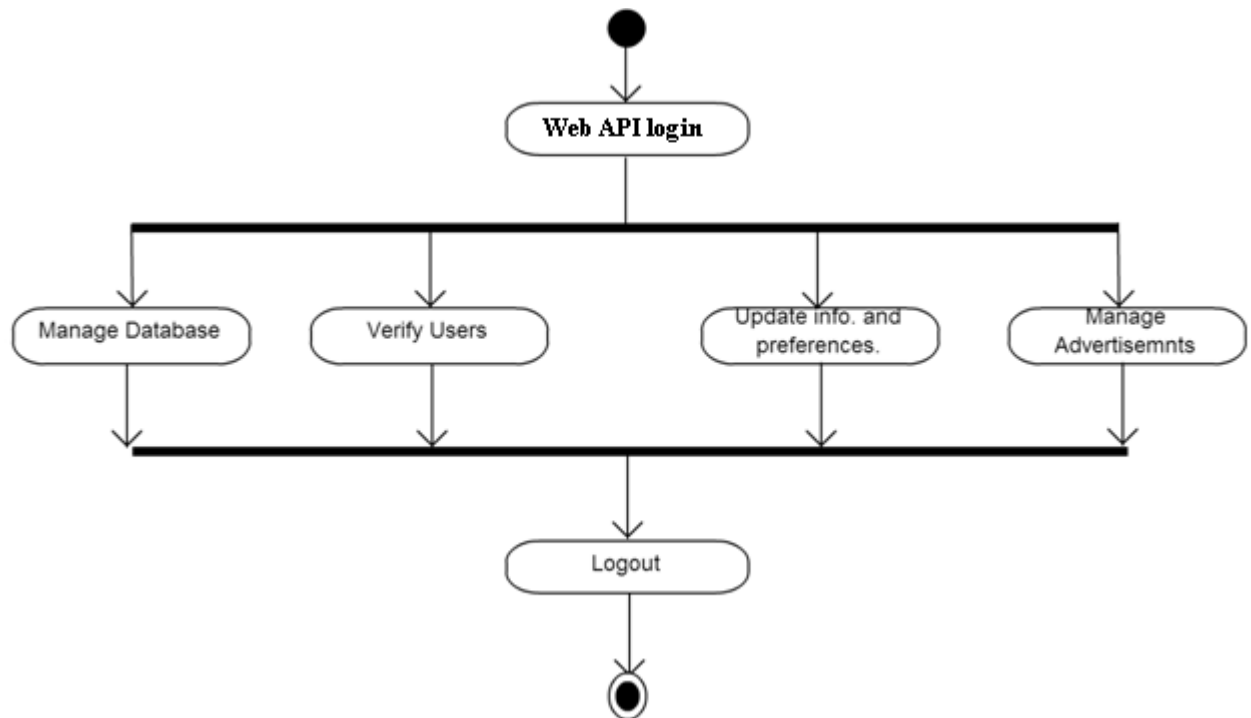
### 4.7.2 ACTIVITY DIAGRAM

- Activity diagrams are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency.
- An activity diagram for this application is shown in Fig 4.7.2 on the next page. In the Unified Modeling Language, activity diagrams can be used to describe the business and operational step-by-step workflows of components in a system.
- An activity diagram shows the overall flow of control.



**Fig 4.6 Activity Diagram**

### Activity diagram for Web Service API.



**Fig 4.7 Activity Diagram For Web Service API**

### 4.7.3 DATA DICTIONARY

FIELD	DATATYPE	CONSTRAINTS
Registration_Id	varchar	Primary key
First_Name	varchar	Not Null
Middle_Name	varchar	Not Null
Last_Name	varchar	Not Null
Gender	varchar	Not Null
Address	varchar	Not Null
Mobile_Number	int	Not Null
Birth_Date	date	Not Null
EmailId	varchar	Unique
User_Name	varchar	Not Null
Password	varchar	Not Null
Confirm_Password	varchar	Not Null

**Table 4.1: Data Dictionary for Registration**

<b>FIELD</b>	<b>DATATYPE</b>	<b>CONSTRAINTS</b>
Login_Id	varchar	Primary key
Registration_Id	varchar	Foreign key
User_Name	int	Not Null
Password	varchar	Not Null

**Table 4.2: Data Dictionary for Login**

<b>FIELD</b>	<b>DATATYPE</b>	<b>CONSTRAINTS</b>
Order_Id	int	Primary key
Order_date	date	Not Null
Order_status	varchar	Not Null

**Table 4.3: Data Dictionary for Order**

<b>FIELD</b>	<b>DATATYPE</b>	<b>CONSTRAINTS</b>
Event_Id	int	Primary key
Event_date	date	Not Null
Event_time	int	Not Null
Event_venue	varchar	Not Null
Event_type	varchar	Not Null

**Table 4.4: Data Dictionary for Event**

<b>FIELD</b>	<b>DATATYPE</b>	<b>CONSTRAINTS</b>
FoodItem_id	int	Primary key
FoodItem_name	varchar	Not Null
FoodItem_category	varchar	Not Null
FoodItem_price	int	Not Null

**Table 4.5: Data Dictionary for Food Item**

<b>FIELD</b>	<b>DATATYPE</b>	<b>CONSTRAINTS</b>
Server_id	int	Primarykey
Server_Requirement	boolean	Not Null
No. of server	int	Not Null

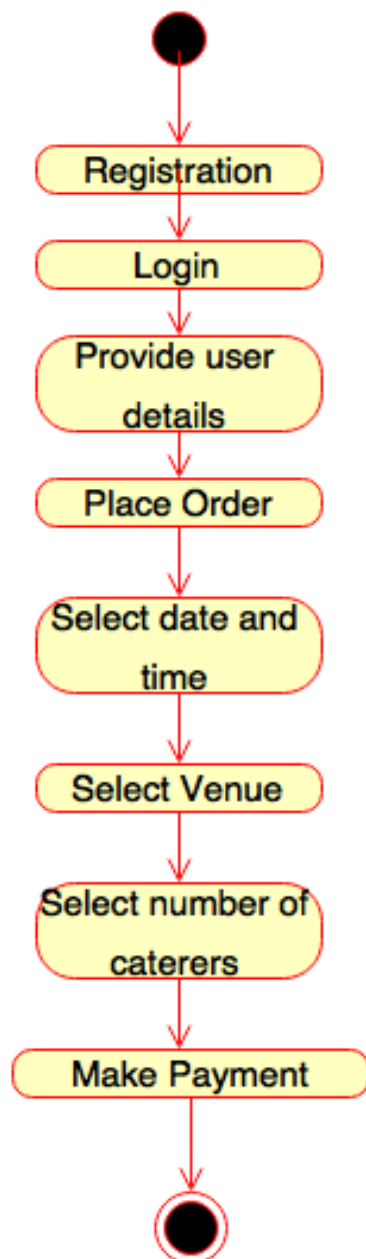
**Table 4.6: Data Dictionary for Servers**

FIELD	DATATYPE	CONSTRAINTS
Payment_id	int	Primary key
Payment_method	varchar	Not Null
Payment_amount	int	Not Null
Payment_date	date	Not Null

Table 4.7: Data Dictionary for Payment

## 4.8 STATE DIAGRAM

User



Manager

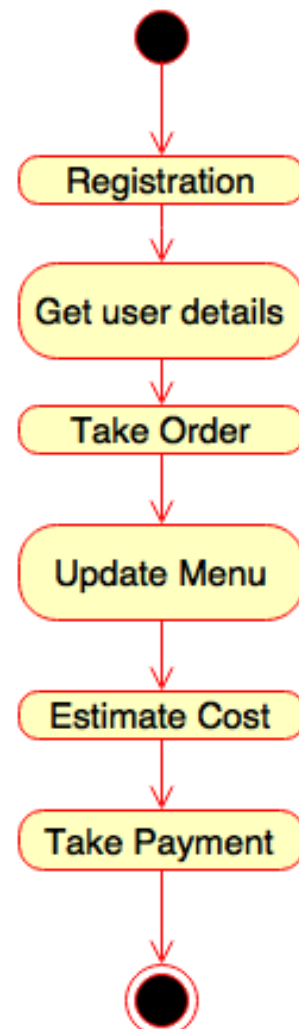
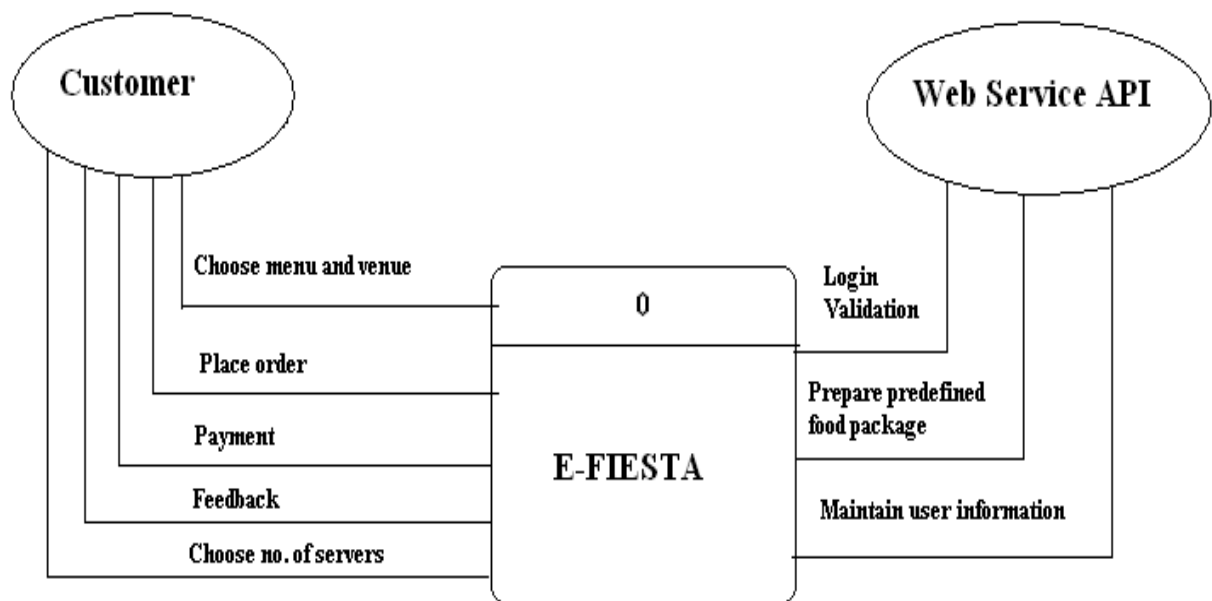


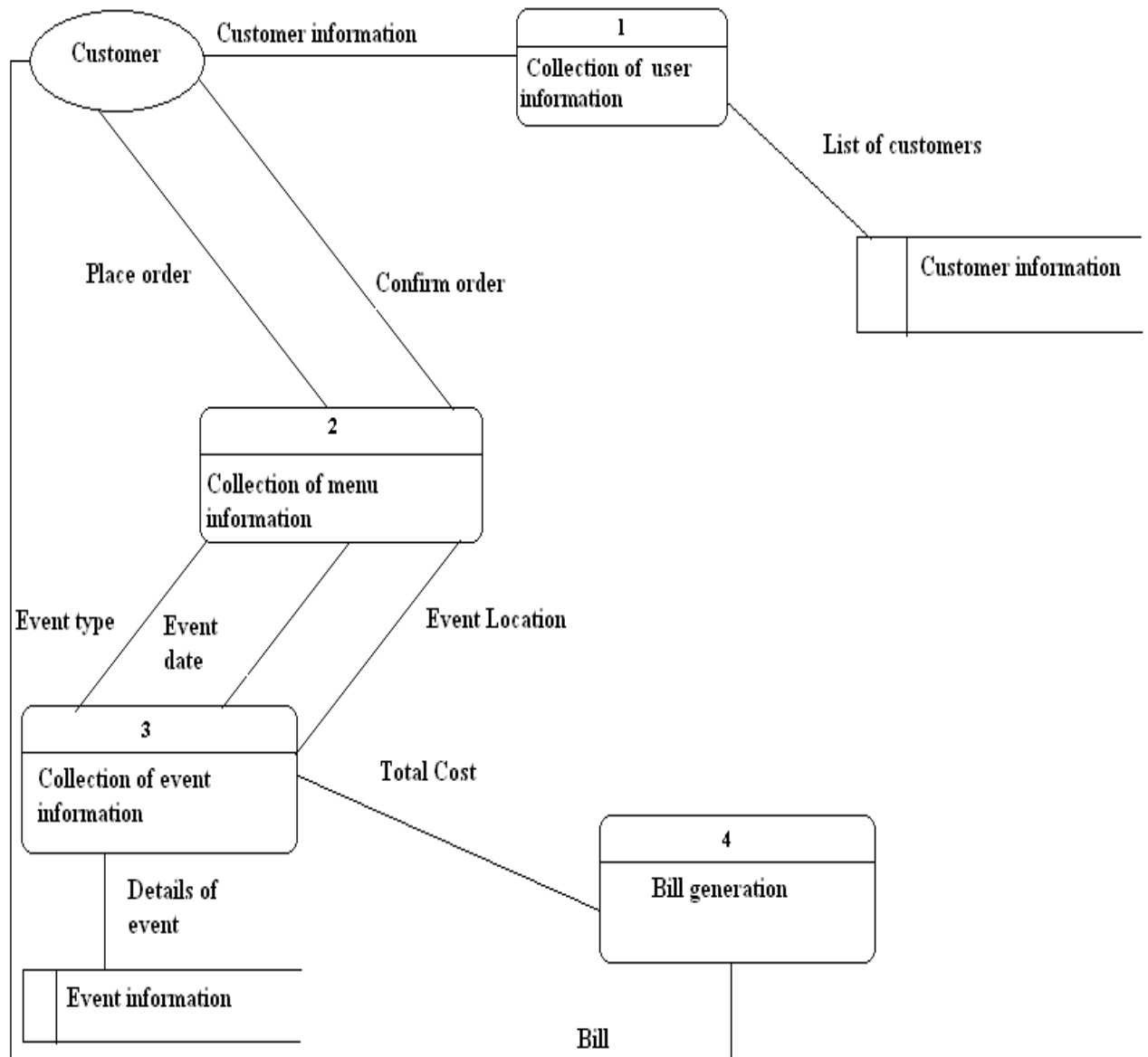
Fig 4.8 State Diagram

## **4.9 DATA FLOW DIAGRAM**

### **LEVEL-0**



**Fig 4.9 Data Flow Diagram (LEVEL-0)**

**LEVEL-1****Fig 4.10 Data Flow Diagram (LEVEL-1)**

## **4.10 MAIN MODULES OF NEW SYSTEM**

### **Admin**

- For security of data there is login facility for admin.
- Admin can manage registered users information.
- Admin can manage advertisements.
- Admin can manage various preferences.
- Sample database models for various system is available on website which is managed by admin.
- Admin profile sample project list to the users so they can project information and can implement themselves for learning.
- Admin can view reports for various activities and information regarding system.
- Admin can view the logs of activities happened on the system like, logged in users, total users, active users, total question and answer in forum, total video, total tutorials etc...

## **4.11 SELECTION OF HARDWARE AND SOFTWARE**

### **❖ Hardware**

- Mobile OS: iOS/ iPHONE
- 20 MB free space to run an application
- RAM : 512 MB RAM (minimum)

### **❖ Software**

- Programming language: Objective- C
- Front End: Interface Builder
- Back End: SQLite 3.8.10.2
- Xcode 7 toolkit

## **CHAPTER 5**

### **SYSTEM DESIGN**

#### **5.1 DATABASE DESIGN/ DATA STRUCTURE DESIGN**

5.1.1 Mapping objects/classes to tables

5.1.2 Tables and Relationship

5.1.3 Logical Description of Data

#### **5.2 SYSTEM PROCEDURAL DESIGN**

5.2.1 Designing Pseudo Code or Algorithm for Method or Operations

#### **5.3 INPUT/OUTPUT AND INTERFACE DESIGN**

5.3.1 Samples of Forms, Reports and Interface

5.3.2 Access Control and Security

#### **5.4 SYSTEM ARCHITECTURE DESIGN**



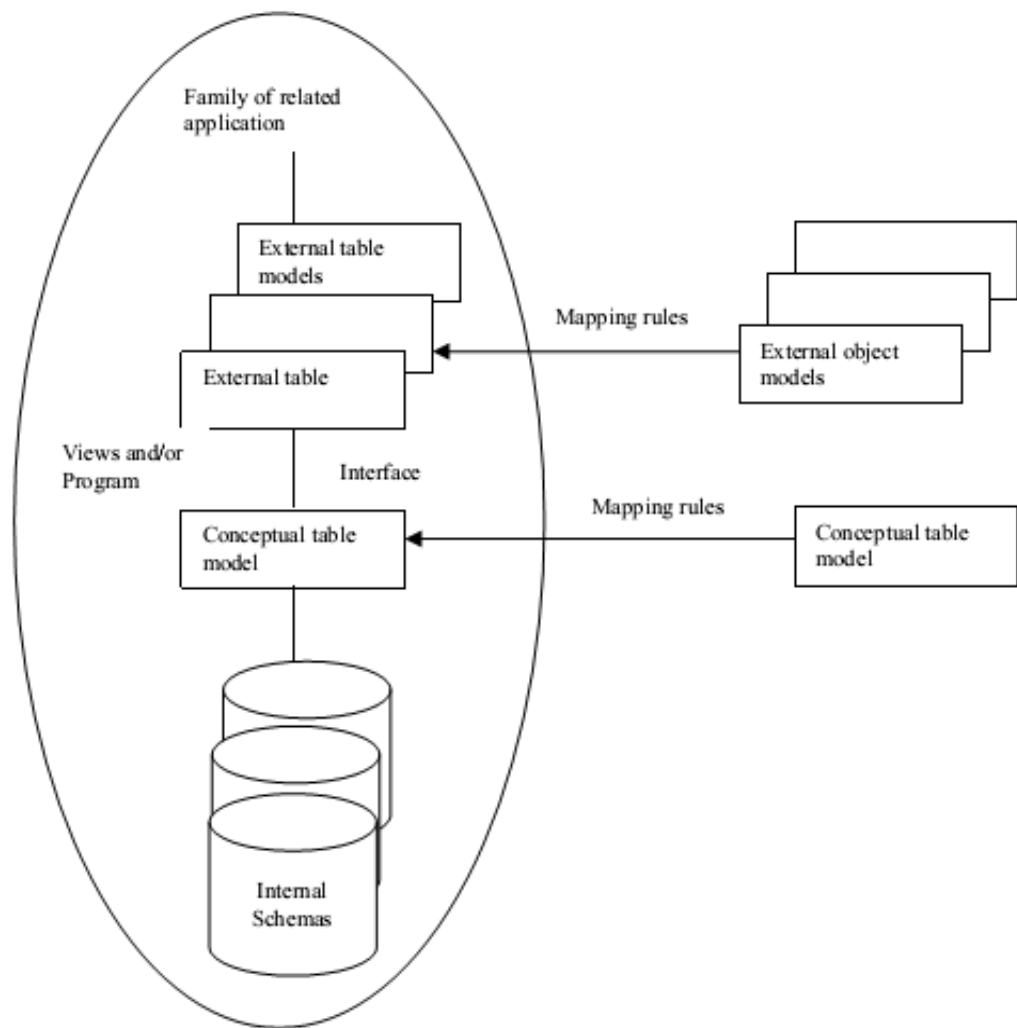
## **CHAPTER 5**

### **SYSTEM DESIGN**

#### **5.1 DATABASE DESIGN/DATA STRUCTURE DESIGN**

##### **5.1.1 Mapping objects/classes to tables**

- First, we should formulate object models for the external and conceptual schema. Then we should translate each object model to ideal tables, that is, the table model. Views and interface programs connect external tables to conceptual tables. Conceptual tables convert these to the internal schema.
- The object model focuses on logical data structures. Each object model consists of many classes, associations, generalizations, and attributes. Object models are effective for communicating with application experts and reaching a consensus about the important aspects of a problem. Object models help developers achieve a consistent, understandable, efficient, and correct database design.
- Each table model consists of many ideal tables. These ideal tables are generic and DBMS independent. Ideal tables abstract the common characteristics of RDBMS implementations. The table model decouples DBMS from object model to table model mapping rules.
- In order to translate from an object model to ideal tables, we must choose from different mapping alternatives. For example, We must also supply details that are missing from the object model, such as the primary key and candidate keys for each table and whether each attribute can be null, or not null. Attributes in candidate keys usually should not be null. You must assign a domain to each attribute and list groups of attributes that are frequently accessed.
- The internal schema of the three-schema architecture consists of SQL commands that create the tables, attributes, and performance tuning structures.



**Fig 5.1: Object modeling and three schema architecture for relational DBMS**

- Each object class maps to one, or more tables in the database. The objects in a class may be partitioned horizontally and/or vertically. For instance, if a class has many instances from which a few are often referenced, then horizontal partitioning may improve efficiency by placing the frequently accessed objects in a table, and the remaining objects in another tables. Similarly, if a class has attributes with different access patterns, it may help to partition the objects vertically.

## 5.1.2 Tables and Relationship

### Order Receipt

The screenshot shows the SQLite Manager interface with the 'OrderReceipt' table selected. The table structure is as follows:

rowid	Name	Package	PlotAddress	StreetAddress	City	EventDate	Guest	Price	TotalCost	DepositCost
1	asdf	Wedding Pr...	asdf	asdf	asdf	03-April-20...	400	1000	400000	200000

The interface also shows a sidebar with a tree view of the database structure, including Master Table (1), Tables (4), Feedback, OrderReceipt, Registration, sqlite\_sequence, Views (0), Indexes (0), and Triggers (0).

Table 5.1 Order Receipt

### Feedback

The screenshot shows the SQLite Manager interface with the 'Feedback' table selected. The table structure is as follows:

rowid	Name	Phone	Email	Feedback
1	Aishwarya	8407898989	as@p.com	This application is very hap...

The interface also shows a sidebar with a tree view of the database structure, including Master Table (1), Tables (4), Feedback, OrderReceipt, Registration, sqlite\_sequence, Views (0), Indexes (0), and Triggers (0).

Table 5.2 Feedback

### **5.1.3 Logical Description Of Data**

#### **❖ Registration**

- RegistrationId: it contains a value of type int that is unique for every user.
- Username: it contains a value of type varchar(50).
- Firstname: it contains a value of type varchar(50).
- Secondname: it contains a value of type varchar(50).
- Lastname: it contains a value of type varchar(50).
- BirthDate: it contains a value of type date.
- Address: it contains a value of type varchar(50).
- Email Id: it contains a value of type varchar(50) that is unique for every user.
- Gender: it contains Boolean/tinyint(1).
- Password: it contains a value of type varchar(50) that is unique for every user.
- Confirm Password: Same as password.

#### **❖ Order Receipt**

- OrderId: it contains a value of type int that is unique for every user.
- Username: it contains a value of type varchar(50).
- Package: it contains a value of type varchar(50).
- Venue: it contains a value of type varchar(50).
- Date and Time: it contains a value of type date.
- No. of Guest: it contains a value of type varchar(50).
- Cost per person: it contains a value of type varchar(50).
- Total Cost: it contains a value of type varchar(50).
- Deposit Cost: it contains a value of type varchar(50).

#### **❖ Feedback**

- FeedbackId: it contains a value of type int that is unique for every user.
- Name: it contains a value of type varchar(50).
- Phone number: it contains a value of type varchar(50).
- Email-Id: it contains a value of type varchar(50).
- Feedback: it contains a value of type varchar(50).

## **5.2 SYSTEM PROCEDURAL DESIGN**

### **5.2.1 Designing Pseudo code or algorithm for Method or operations**

**Registration:** In the Registration table RegistrationId, UserName, FirstName, MiddleName, LastName, Gender, Phone number, BirthDate ,EmailId, Password, Confirm Password are the required fields which the user has to enter compulsorily.

**OrderReceipt:** In the Order Receipt table OrderId, Package, Date and Time, Venue, Number of Guest, Cost per person, Total Cost, Deposit Cost are the data visible in this page.

**Feedback:** In the Feedback table FeedbackId, Name, FirstName, Phone number, EmailId, Feedback are the required fields which the user has to enter compulsorily.

## **5.3 INPUT/OUTPUT AND INTERFACE DESIGN**

### **5.3.1 Samples Of Forms, Reports and Interface**

#### **Registration and Login**

The image displays two mobile application interfaces side-by-side. The left interface is titled 'Registration Form' and contains the following fields: Username, First Name, Middle Name, Last Name, Date Of Birth, Gender (with radio buttons for Male and Female), Address, Phone number, E-mail id, Password, and Confirm Password. A 'Submit' button is at the bottom. The right interface is titled 'E-Fiesta' and shows a login screen with fields for Username and Password. Below these fields are links for 'Forgot Password', 'Login', and 'Sign Up'. The background of the right interface features a blurred image of a chocolate cake with strawberries.

**Fig 5.2 Registration and Login**

### **5.3.2 Access Control and Security**

- The basic nature of mobile devices which are small, portable, remote, multi-purposed, wirelessly connected, makes their exposure to security threats significantly higher than those of desktops and laptops.



**Fig 5.3 Access control and security**

- Mobile security is extremely multi-faceted and includes: Mobile Application Management, High level of data-privacy protection and Strong Authentication. There is a need to strike the right balance between securing the device and data without impinging the usability.

#### **Sharing and storing data**

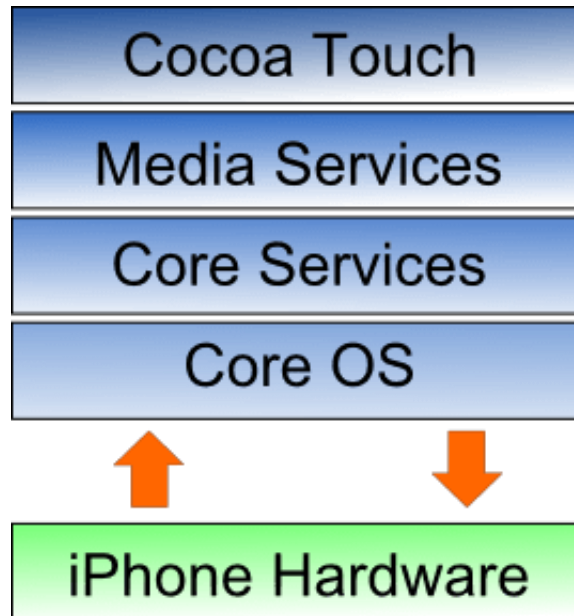
- [Apple's new OS](#) takes data sharing and storage to a new level, and its Continuity features provide seamless integration between iOS and Mac OS X devices. One of these features, Handoff, lets a user start a task on one device and pick up right where they left off on another. For example, the user can begin an email on an iPhone and complete it on a MacBook Pro.
- Apple has also expanded AirDrop to let users transfer docs between their iOS devices and Macs without an Internet connection. In addition, a user can send and receive phone calls on a Mac paired with an iPhone running on the same Wi-Fi network.

#### **IT's wake-up call**

- Apple's release of iOS 8, iPhone 6 and iPhone 6 Plus brings with it multiple features that can benefit the enterprise. Security and device management has been enhanced and application development made more flexible and extensive. As good as all this sounds, IT administrators will have to contend with all the implementation and management considerations that come with any new technology.

## 5.4 SYSTEM ARCHITECTURE DESIGN

- The following diagram shows the major components of the iPhone. Each section is described in more detail below.



**Fig 5.4 iPhone Architecture**

**The Cocoa Touch layer** sits at the top of the iPhone OS stack and contains the frameworks that are most commonly used by iPhone application developers. Cocoa Touch is primarily written in Objective-C, is based on the standard Mac OS X Cocoa API and has been extended and modified to meet the needs of the iPhone.

The role of the **Media layer** is to provide the iPhone OS with audio, video, animation and graphics capabilities. As with the other layers comprising the iPhone OS stack, the Media layer comprises a number of frameworks that can be utilized when developing iPhone apps. In this section we will look at each one in turn.

The iPhone **Core Services layer** provides much of the foundation on which the above layers are built and consists of the following frameworks.

The **Core OS Layer** is the bottom layer of the iPhone OS stack and sits directly on top of the device hardware. The layer provides a variety of services including low level networking, access to external accessories and the usual fundamental operating system services such as memory management, file system handling and threads.

## **CHAPTER 6**

### **IMPLEMENTATION, PLANNING AND DETAILS**

#### **6.1 IMPLEMENTATION ENVIRONMENT**

#### **6.2 PROGRAM/MODULE SPECIFICATION**

#### **6.3 SECURITY FEATURES**

#### **6.4 CODING STANDARDS**



## **CHAPTER 6**

### **IMPLEMENTATION, PLANNING AND DETAILS**

#### **6.1 Implementation Environment**

##### **GUI vs. Non GUI**

We have prepared an Online Email Marketing System Application. Like any other website our website application our application is also a GUI (Graphical User Interface) based application. It has an eye catching layouts and organized display of categories, products and their descriptions.

##### **Single vs. Multiuser**

The very first person in authority at the admin side is the Admin. Admin will create and authenticate users. On the user side as well multiple user can use the application simultaneously, get register themselves and can set preference and search for company. Thus our Online Email Marketing System Application supports users and admin accordingly.

#### **6.2 PROGRAM / MODULES SPECIFICATION**

- Registration- User registers in the application
- Login- Users login to the application.
- Package Selection- Users select the package: Predefined Gold, Predefined Silver, Customized package.
- Gallery- Enables users to view images of various event catering.
- Location- Enables users to view location of some party plots.
- Feedback- Enables users to give feedbacks.
- User Information- Users need to add their information.
- Order Receipt- Enables users to view their Order and event related information.
- Payment- Users need to pay the deposit money which is 50% of the total cost.

#### **6.3 SECURITY FEATURES**

Security means protecting the data from accidental or intercepting events. The data and programs must be protected from the threats, theft, fire, disk corruption and any other physical destruction. In this project data is secured by password & many constraints have to be satisfied before the user can access the data.

**iOS features that secure the system, apps, and data:**

- Initiate software updates via MDMNEW
- App trust securityNEW
- System software authorization
- Touch ID and device passcodes
- App entitlements
- App extensions
- File-level data protection
- Encryption
- Key classes
- Per-app VPN
- Single sign-on

**6.4 CODING STANDARDS****Objective C Coding Standards**

Coding standards are rules that programmers follow to help in ensuring that their Source Code is easy to read & maintain. Habit of using coding standards is a sign of Good Programmer.

**Naming Convention**

- ✓ Use of full English descriptors that accurately describe the variable, functions, subroutines and control names.
- ✓ Us of mixed case to make names readable.

**Function Naming**

- ✓ Function/Subroutine names have a strong active verb as the first word.
- ✓ Function/Subroutine names must begins with a lowercase letter with each subsequent new word in uppcase and subsequent letters in each word in lowercase i.e.

Hungarian notation. For example classic Root.

**Variable Naming**

- ✓ Have followed Hungarian notation for naming variables.
- ✓ Variable's names starts with lowercase letter then follow Hungarian notation with first three indicating the data type of the variable.

**Indentation**

If else structure, For Next, While and, Do while constructs have been properly intended.

**General****Code Cleanup:**

- ✓ Removed unused & disposable code.
- ✓ Removed unused variables.

**Structuring of code:**

- ✓ Divided the code into logical entities and have put each entity into a subroutine/function. The Subroutine name reflects the functionality it achieves.

Following are some conventions that Apple uses for its own Cocoa frameworks.

- Code Naming Basics
- Naming Methods
- Naming Functions
- Naming Properties and Data Types
- Acceptable Abbreviations and Acronyms

## **6.5 SAMPLE CODING**

```
// LoginPage.h
```

```
#import <UIKit/UIKit.h>
```

```
#import "RegistrationPage.h"
```

```
#import "HomePage.h"
```

```
@interface LoginPage :
```

```
UITableViewController<UITextFieldDelegate,UITableViewDataSource,UITableViewDelegate>
```

```
{
```

```
    UITableView *tblView;
```

```
    IBOutlet UITextField *txtUsername;
```

```
    IBOutlet UITextField *txtPassword;
```

```
    IBOutlet UIButton *btnLogin;
```

```
    IBOutlet UIButton *btnFpwd;
```

```
    IBOutlet UIButton *btnSignup;
```

```
    NSArray *arr;
```

```
    NSMutableArray *arrFetchData;
```

```
}
```

```

@property(strong, nonatomic) NSString *strUsername;
@property(strong, nonatomic) NSString *strPassword;
@end

// LoginPage.m
#import "LoginPage.h"
@interface LoginPage ()
@end
@implementation LoginPage
- (void)viewDidLoad {
    [super viewDidLoad];
    [self.navigationController setNavigationBarHidden:NO];
    [self.navigationItem setHidesBackButton:YES];
    [self setTitle:@"E-Fiesta"];
    self.navigationController.navigationBar.tintColor = [UIColor blackColor];
    UIImageView *ImgView=[[UIImageView alloc] initWithFrame:CGRectMake(0, 0,
SCREENWIDTH, SCREENHEIGHT)];
    [ImgView sizeToFit];
    ImgView.image=[UIImage imageNamed:@"BgImage"];
    [self.tableView setBackgroundView:ImgView];
}
-(void)viewWillAppear:(BOOL)animated
{
    [super viewWillAppear:animated];
    DBManager *dBM = [[DBManager alloc] initdatabase];

    NSMutableArray *arrFetchData = [dBM getAllDataFrom:@"UserDetails"];
}
-(IBAction)Login:(id)sender
{
    NSString *sql = [[NSString alloc] initWithFormat:@"select * from UserDetails where
Username='% @' and Password='% @'",txtUsername.text,txtPassword.text];    [sql UTF8String];
    DBManager *dBM = [[DBManager alloc] initdatabase];

    NSString *userName = [dBM getStringFromQuery:sql];

```

```
[dBM executeCreateQuery:userName];
[dBM executeQuery:userName];
BOOL isValid = YES;
isValid = [dBM validateUserAuthentication:txtUsername.text
withPassword:txtPassword.text];
if (isValid) {
    HomePage *objHome=[self.storyboard
instantiateViewControllerWithIdentifier:@"HomePage"];
    [self.navigationController pushViewController:objHome animated:YES];
}

else
{
    UIAlertView * alert = [[UIAlertView alloc] initWithTitle:@"Login Unsuccessful"
message:@"Incorrect Username or Password" delegate:nil cancelButtonTitle:@"OK"
otherButtonTitles:nil];
    [alert show];
}

}

-(IBAction)onSignup:(id)sender
{
    RegistrationPage *objRegister=[self.storyboard
instantiateViewControllerWithIdentifier:@"RegistrationPage"];
    [self.navigationController pushViewController:objRegister animated:YES];
}

- (BOOL)textFieldShouldReturn:(UITextField *)textField;
{
    [textField resignFirstResponder];
    return YES;
}

@end
```

**// RegistrationPage.h**

```
#import <UIKit/UIKit.h>
#import "LoginPage.h"
#import "DBManager.h"
#import "NSString+NSString.h"

@interface RegistrationPage : UITableViewController
{
    IBOutlet UITextField *txtFname;
    IBOutlet UITextField *txtMname;
    IBOutlet UITextField *txtLname;
    IBOutlet UITextField *txtPhn;
    IBOutlet UITextField *txtEmail;
    IBOutlet UITextField *txtUsername;
    IBOutlet UITextField *txtPwd;
    IBOutlet UITextField *txtCPwd;
    IBOutlet UIDatePicker *MyDatePicker;

    IBOutlet UITextField *txtDob;
    IBOutlet UIButton *btnMale;
    IBOutlet UIButton *btnFemale;
    IBOutlet UITextField *txtAddress;
    BOOL isValidate;
    UIDatePicker *datePicker;
    UIPickerView *pickerView;
    NSString *strMale,*strFemale;
}

- (IBAction)btnGenderTapped:(id)sender;

@end
```

**// RegistrationPage.m**

```
#import "RegistrationPage.h"

@interface RegistrationPage ()

@end

@implementation RegistrationPage

- (void)viewDidLoad {
    [super viewDidLoad];

    self.title=@"Registration Form";
    [self.tableView setBackgroundColor:[UIColor colorWithRed:215/255.0f green:214/255.0f
blue:209/255.0f alpha:1.0f]];
    self.navigationController.navigationBar.tintColor = [UIColor blackColor];
    self.navigationItem.hidesBackButton = YES;
}
```

```

datePicker =[[UIDatePicker alloc] initWithFrame:CGRectMake(0, 0,0, 200)];
datePicker.datePickerMode=UIDatePickerModeDate;
datePicker.date=[NSDate date];
[datePicker addTarget:self action:@selector(LabelTitle:)
forControlEvents:UIControlEventValueChanged];

UIToolbar *toolBar = [[UIToolbar alloc] initWithFrame:CGRectMake(0, 0, 320, 44)];
toolBar.barStyle = UIBarStyleBlackOpaque;
toolBar.translucent = YES;
toolBar.tintColor = nil;
[toolBar sizeToFit];

UIBarButtonItem* doneButton = [[UIBarButtonItem alloc] initWithTitle:@"Done"
style:UIBarButtonItemStyleDone target:self
action:@selector(pickerDoneClicked:)] ;
[toolBar setItems:[NSArray arrayWithObjects:doneButton, nil]];

[txtDob setInputView:MyDatePicker];
[txtDob setInputAccessoryView:toolBar];

[btnMale setImage:[UIImage imageNamed:@"On"] forState:UIControlStateNormal];
[btnFemale setImage:[UIImage imageNamed:@"Off"] forState:UIControlStateNormal];
strMale = btnMale.titleLabel.text;
}
-(IBAction)pickerDoneClicked:(id)sender
{
    [txtDob resignFirstResponder ];
}
-(IBAction)LabelTitle:(id)sender
{
    NSDateFormatter *dateFormat=[[NSDateFormatter alloc] init];
    dateFormat.dateFormat=NSDateFormatterMediumStyle;
    [dateFormat setDateFormat:@"dd-MMMM-yyyy"];
    NSString *str=[NSString stringWithFormat:@"%s @",[dateFormat
stringFromDate:datePicker.date]];
    txtDob.text=str;
}

- (BOOL)textFieldShouldBeginEditing:(UITextField *)textField
{
    if (textField==txtDob)
    {
        [txtDob setInputView:datePicker];
    }
    return YES;
}
-(IBAction)doneTyping:(id)sender
{
    [txtDob resignFirstResponder];
}
-(BOOL)textFieldShouldReturn:(UITextField *)textField
{

```

34692

```

[textField resignFirstResponder];
return YES;
}

-(void)pickerDoneClicked
{

}

-(IBAction)onClick:(UIButton *)sender
{
    if ([txtFname.text isEqualToString:@""]) {
        [@"Please enter Firstname" showAlert];
        return;
    }

    else if ([txtLname.text isEqualToString:@""])
    {
        [@"Please enter Lastname" showAlert];
        return;
    }
    else if ([txtMname.text isEqualToString:@""])
    {
        [@"Please enter Middle name" showAlert];
        return;
    }
    else if ([txtDob.text isEqualToString:@""])
    {
        [@"Please enter Date of birth" showAlert];
        return;
    }
    else if ([txtEmail.text isEqualToString:@""])
    {
        [@"Please enter Email" showAlert];
        return;
    }
    else if ([txtUsername.text isEqualToString:@""])
    {
        [@"Please enter Username" showAlert];
        return;
    }
    else if ([txtPwd.text isEqualToString:@""])
    {
        [@"Please enter Password" showAlert];
        return;
    }
    else if ([txtCPwd.text isEqualToString:@""])
    {
        [@"Please enter Confirm password" showAlert];
        return;
    }
    else if ([txtCPwd.text isEqualToString:txtPwd.text]== FALSE)

```



34692

```

{
    [@"Confirm password does not match Password" showAlert];
    return;
}
else if (![self validatePhoneWithString:[txtPhn text]])
{
    [@"Please enter valid phone number" showAlert];

return;
}

else if (![self validateEmailWithString:[txtEmail text]])
{
    [@"Please enter valid email" showAlert];
    return;
}

else
{
    [self storeRegistrationInfoIn_DB];
    HomePage *objHome=[self.storyboard
instantiateViewControllerWithIdentifier:@"HomePage"];
    [self.navigationController pushViewController:objHome animated:YES];
}
}

- (BOOL)validateEmailWithString:(NSString*)email
{
    NSString *emailRegex = @"^[A-Z0-9a-z\\._%+-]+@[A-Za-z0-9-]+\\.([A-Za-z]{2,4})$";
    NSPredicate *emailTest = [NSPredicate predicateWithFormat:@"SELF MATCHES %@",
emailRegex];
    return [emailTest evaluateWithObject:email];
}

- (BOOL)validatePhoneWithString:(NSString*)phone
{
    // NSString *phoneNumber;
    NSString *phoneRegex = @"[235689][0-9]{6}([0-9]{3})?";
    NSPredicate *test = [NSPredicate predicateWithFormat:@"SELF MATCHES %@", phoneRegex];
    return [test evaluateWithObject:phone];
}

-(void)storeRegistrationInfoIn_DB
{
    NSMutableDictionary * dic = [NSMutableDictionary new];
    [dic setObject:txtFname.text forKey:@"FirstName"];
    [dic setObject:txtMname.text forKey:@"MiddleName"];
    [dic setObject:txtLname.text forKey:@"LastName"];
    [dic setObject:txtPhn.text forKey:@"PhoneNo"];
    [dic setObject:txtEmail.text forKey:@"Email"];
    [dic setObject:txtUsername.text forKey:@"UserName"];
    [dic setObject:txtPwd.text forKey:@"Password"];

```

```
[dic setObject:txtDob.text forKey:@"DateOfBirth"];
```

```
[dic setObject:txtAddress.text forKey:@"Address"];
```

```
DBManager *DBM = [[DBManager alloc] initWithDatabase];
```

```
[DBM insertDic:dic toTable:@"UserDetails"];
```

```
[@"Registered successfully" showAlert];
```

```
}
```

```
- (IBAction)btnGenderTapped:(UIButton *)sender {
```

```
    if ((sender.tag==2)) {
```

```
        [btnMale setImage:[UIImage imageNamed:@"Off"] forState:UIControlStateNormal];
```

```
        [btnFemale setImage:[UIImage imageNamed:@"On"] forState:UIControlStateNormal];
```

```
    }
```

```
    else
```

```
    {
```

```
        [btnMale setImage:[UIImage imageNamed:@"On"] forState:UIControlStateNormal];
```

```
        [btnFemale setImage:[UIImage imageNamed:@"Off"] forState:UIControlStateNormal];
```

```
    }
```

```
}
```

```
@end
```

## **CHAPTER 7**

### **TESTING**

#### **7.1 TEST PLAN**

#### **7.2 TESTING STRATEGY**

- 7.2.1 Unit Testing
- 7.2.2 Integration Testing
- 7.2.3 Validation Testing
- 7.2.4 Performance Testing
- 7.2.5 Alpha and Beta Tests

#### **7.3 TESTING METHOD**

- 7.3.1 Black Box Testing
- 7.3.2 White Box Testing

#### **7.4 TEST CASE**

## **CHAPTER -7**

### **TESTING**

- Testing means the process of analyzing the software item to detect the differences between existing or required condition and evaluate the features of the software items.
- He thorough testing of the system before release of the software needs to be done vide the various test cases and modes so that the software becomes devoid of bugs and uses minimum space requirements as well as minimum time to perform.
- The test cases were selected beforehand with expected results defined and actual results recorded for comparison.
- The selection of test cases is done vide “White Box Testing” technique to check the internal programming logic and efficiency and vide ”Black Box Testing” technique to check software requirement fulfillment with intension of finding maximum number of errors with minimum effort and time.
- Although test cases are a design by considering the cyclomatic complexity, conditional test, still the software code is not in its optional form, as all other possible alternative parts in the software are not considered.

#### **Test Characters:**

- A good test has a high probability of finding an error
- A good test is not redundant.
- A good test should be “best of breed”.
- A good test should be neither too simple nor too complex.

### **7.1 TEST PLAN**

- This section describes the overall testing strategy that we are going to use for testing the Online Email marketing System Application.
- I agree to use two strategies for testing our project which are mentioned in the bottom lines.
- First, if a module or section is developed individually due to division by work, responsibility of testing components is up to developer
- On the other hand, in system testing these parts are checked by me properly.

**Software to be tested:**

- Our application is being developed for company who wants to make an app for college seniors to help find a company according to their preference.
- They will be able save all the data regarding to their preference and will be able to edit these data anytime the wish.
- Meanwhile, they will be able to add/delete new user to/from the system.
- Any record of the data they add, edit and delete will be kept in the database in a secure manner.
- Any new user will be able able to create its account and easily will be able log in it.
- All components and their integration and finally all system will be tested in testing phase.

**7.2 TESTING STRATEGY**

- In this document, whole testing process of Online Email Marketing System Application is described. We will a bottom-up approach test methodology.
- First the units are tested separately, and then their integrations are tested. After those application based tests, their validation tests from previous reports are declared.
- Finally, high-order tests are explained. All steps of testing process, which are completed, still in progress, and planned to be made in the future will be stated in the following sections.

**7.2.1 UNIT TESTING**

- E-Fiesta Application includes two main components to undergo unit testing.
- First one is Admin side and the other is User Side.
- Those two components are tested separately in order to make sure that each component does not have any internal errors and works properly.

**7.2.2 INTEGRATION TESTING**

- After all the modules pass the unit testing, they get to be tested whether they work correctly when they are running concurrently and communicating to each other.
- This specification is vital since although each module might be working individually, different implementations coming from different modules may conflict while running together which is to be located during integration testing and to be recorded for fixing.
- Integration tests of our application include the integration of main units, namely Database, Admin side and User Side

### **7.2.3 VALIDATION TESTING**

- Result of this test is going to show whether expectations in design is met or not.
- Our Software Requirements Specification document defines the functional and non-functional requirements of the application.
- Every single requirement in this document must be considered one-by-one and the software must be guaranteed to satisfy all these requirements.
- Test cases and scenarios are defined and will be run to ensure the correct working of the project as a whole. The order of validation is the same as integration.

### **7.2.4 PERFORMANCE TESTING**

- Performance Tests will be made to see whether the program runs in real time as it should be.

### **7.2.5 ALPHA AND BETA TESTS**

- To perform Alpha testing we will assemble the four User side and admin side of ecommerce project and make our accounts accordingly and will perform alpha test on role type.

## **7.3 TESTING METHOD**

### **7.3.1 BLACKBOX TESTING**

- The method of Black Box Testing is used by the software engineer to derive the required results of the test cases:
  1. Black Box Testing alludes to test that are conducted at the software interface.
  2. A Black Box Test examines some fundamental aspect of a system with little regard for the internal logic structure of the software.
  3. A limited number of important logical paths can be selected and exercised.
  4. Important data structure can be probed for validity.
- Black box testing was performed to find errors in the following categories:-
  - Incorrect or missing functions.
  - Graphics error.
  - Errors in data in binary format.

- Error in data in integer format.
- File error.
- Pointer error.
- Memory access error.
- Variable error.
- Performance error.

### **7.3.2 WHITE BOX TESTING**

- White Box Testing is sometimes called Glass Box Testing. Using White Box Testing methods the software engineer can derive the following test cases:
  1. Guarantee that all independent paths within a module have been exercised at least once.
  2. Exercise all logical decisions on their true and false sides.
  3. Execute all loops at their boundaries and within their operational bounds.
  4. Exercise internal data structures to ensure the validity
- In White Box Testing efforts were made to handle the following:-
  - Number of input parameters equal to number of arguments.
  - Parameters and arguments attributes match.
  - Number of arguments transmitted is called modules equal to attributes of parameters.
  - Unit system of argument transmitted is called modules equal unit system of parameter.
  - Number of attributes and order of arguments to build in functions correct.
  - Any references to parameters not associated to build in functions correct.
  - Input only arguments altered.
  - Global variable definition consistent across module.
  - Files attributes correct.
  - Format specifications matches I/O specification.
  - Files opened before use.
  - File closed while working is going on.
  - I/O errors handled.
  - Any textual errors in output information.

## **7.4 TEST CASE**

- **Registration Module:**

Test case: Registration module.

Result:    User data insertion successfully.  
              User data editing successfully.  
              User data deletion successfully.

- **Order Receipt Module:**

Test case: Order Receipt Module.

Result:    User data insertion successfully.  
              User data editing successfully.  
              User data deletion successfully.

- **Feedback Module:**

Test case: Feedback Module.

Result:    Feedback insertion successfully.  
              Feedback editing successfully.  
              Feedback deletion successfully.



## **CHAPTER 8**

### **SCREENSHOTS AND USER MANUAL**

#### **8.1 ADMIN SIDE SCREENSHOT**

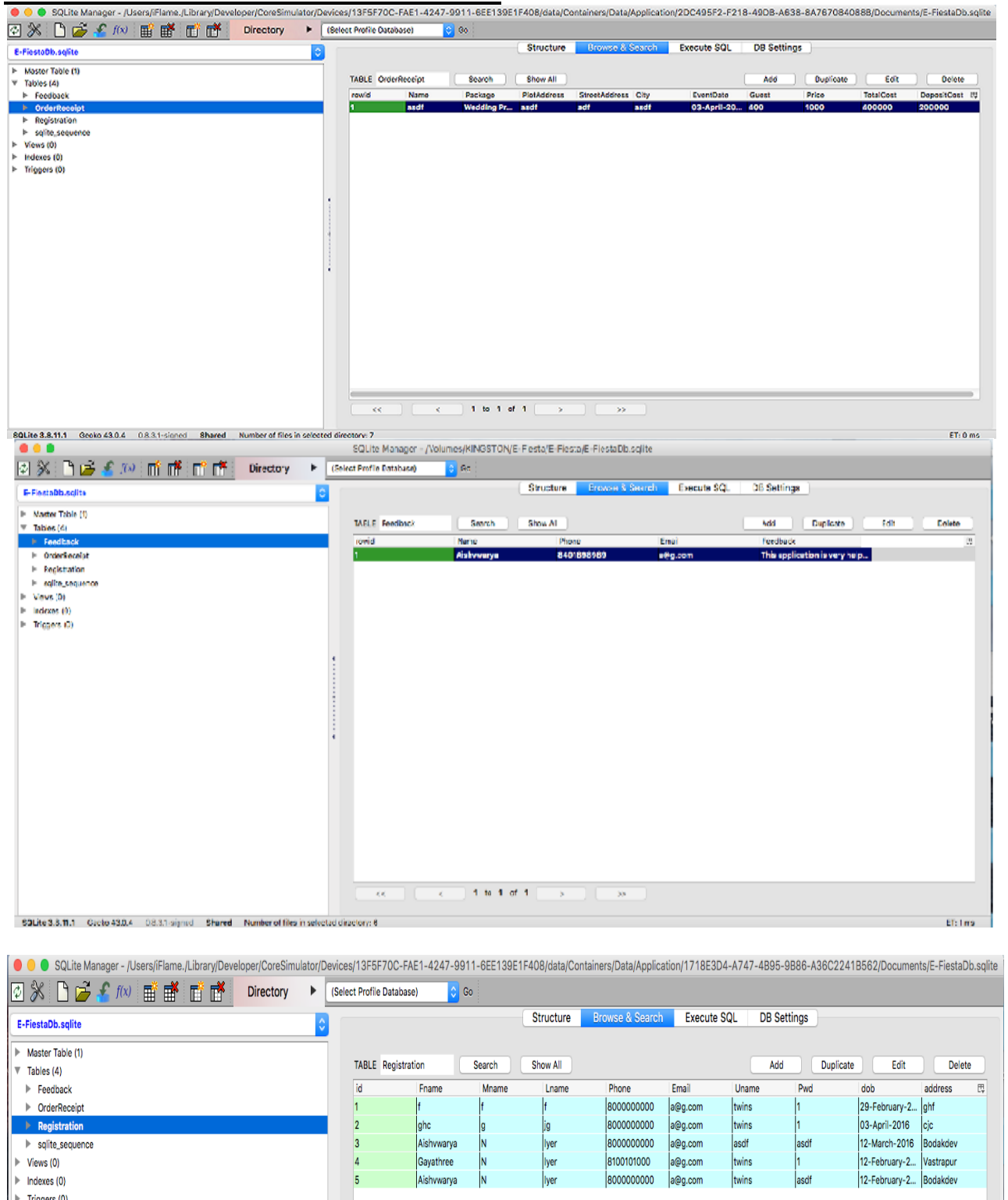
#### **8.2 USER SIDE SCREENSHOTS**

- 8.2.1 Splash Screen
- 8.2.2 Login Page
- 8.2.3 Registration Form
- 8.2.4 Home Page
- 8.2.5 Events
- 8.2.6 Other Events
- 8.2.7 Menu Packages
- 8.2.8 Predefined Package and Customized Package
- 8.2.9 User Information
- 8.2.10 Order Receipt
- 8.2.11 Payment
- 8.2.12 Forgot Password
- 8.2.13 About Us and Contact Us
- 8.2.14 Gallery
- 8.2.15 Feedback
- 8.2.16 Location
- 8.2.17 Cancel Order

## CHAPTER 8

### SCREEN SHOTS AND USER MANUAL

#### 8.1 ADMIN SIDE SCREEN SHOT



**Fig 8.1 Admin side Screenshot**

## 8.2 USER SIDE SCREENSHOTS

### 8.2.1 SPLASH SCREEN



Fig 8.2 Splash Screen

### 8.2.2 LOGIN PAGE

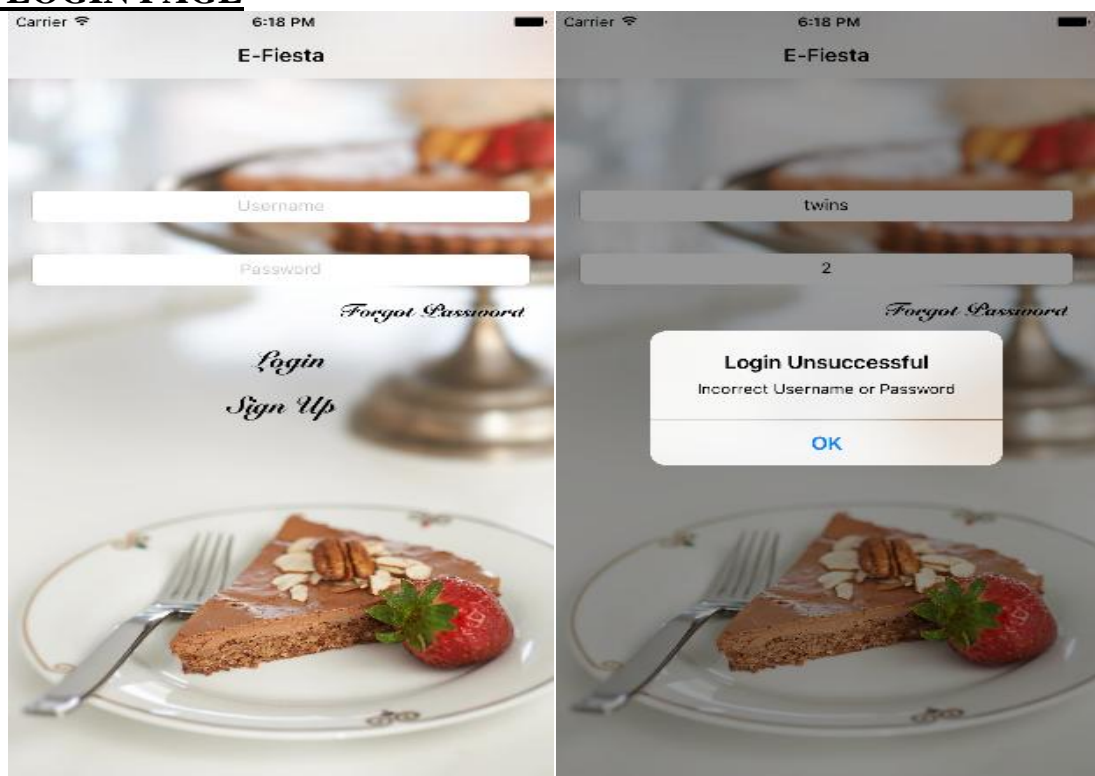


Fig 8.3 Login Page

8.2.3 REGISTRATION FORM

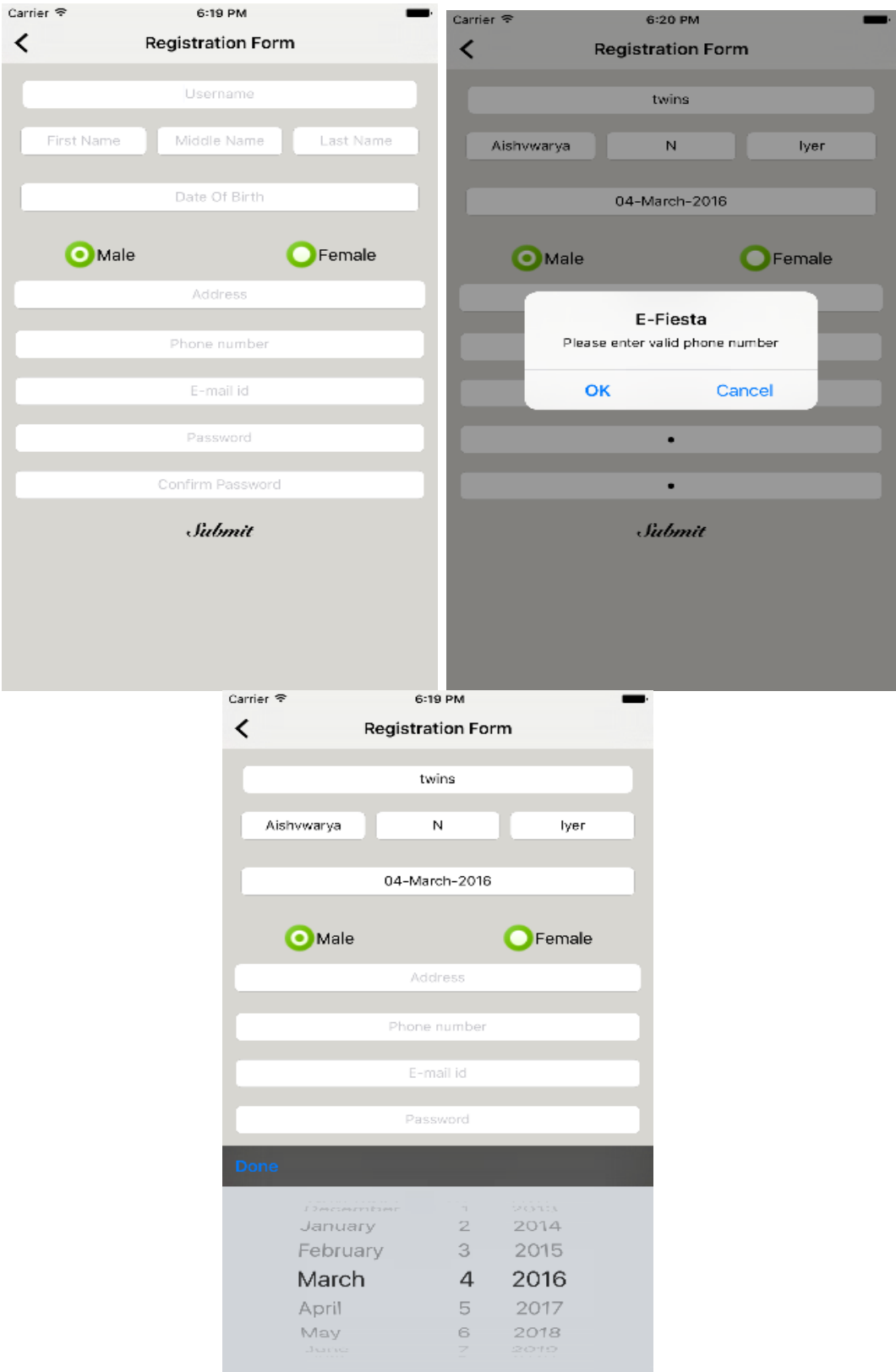


Fig 8.4 Registration Form

## 8.2.4 HOME PAGE

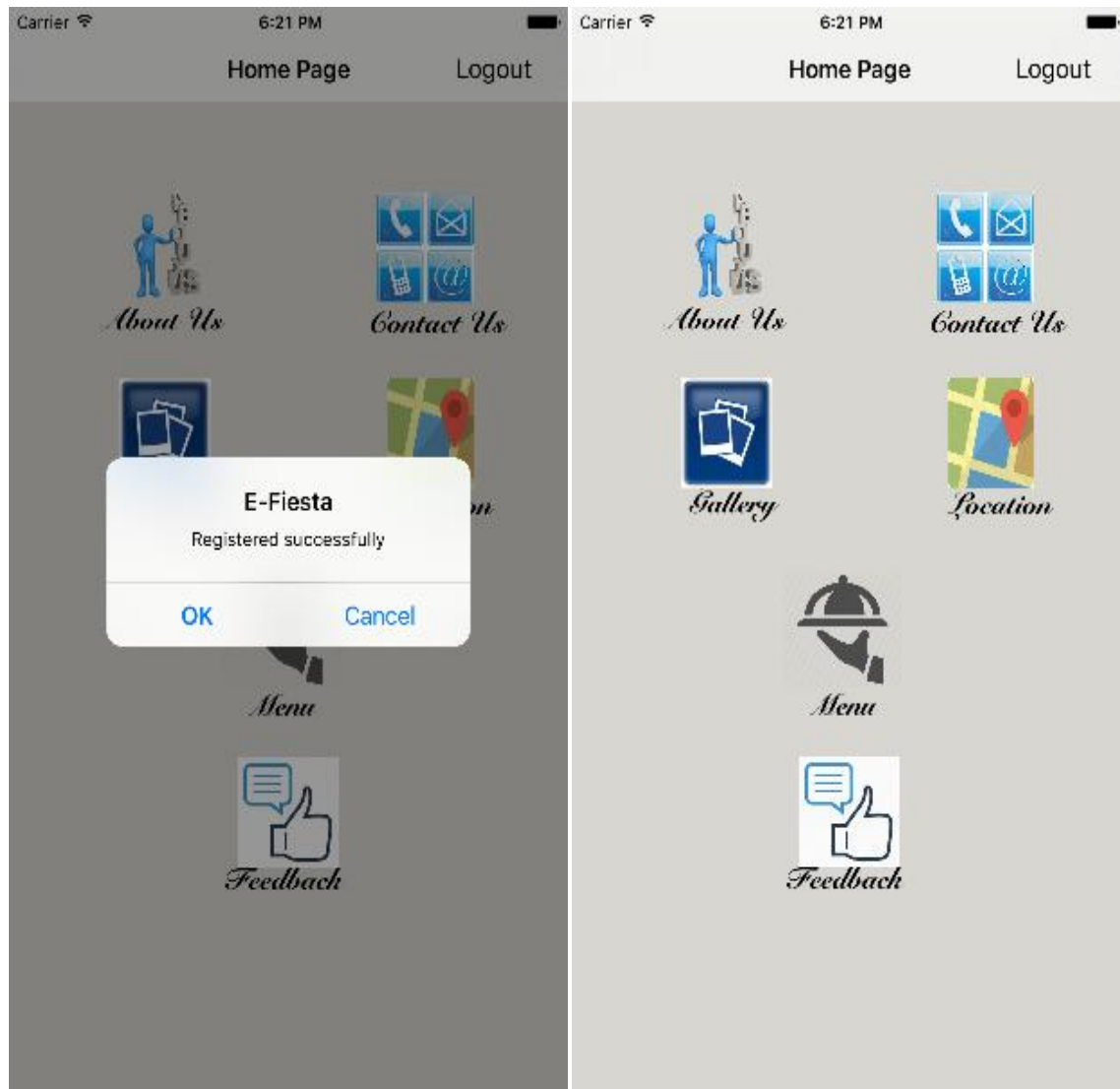


Fig 8.5 Home Page

## 8.2.5 EVENTS

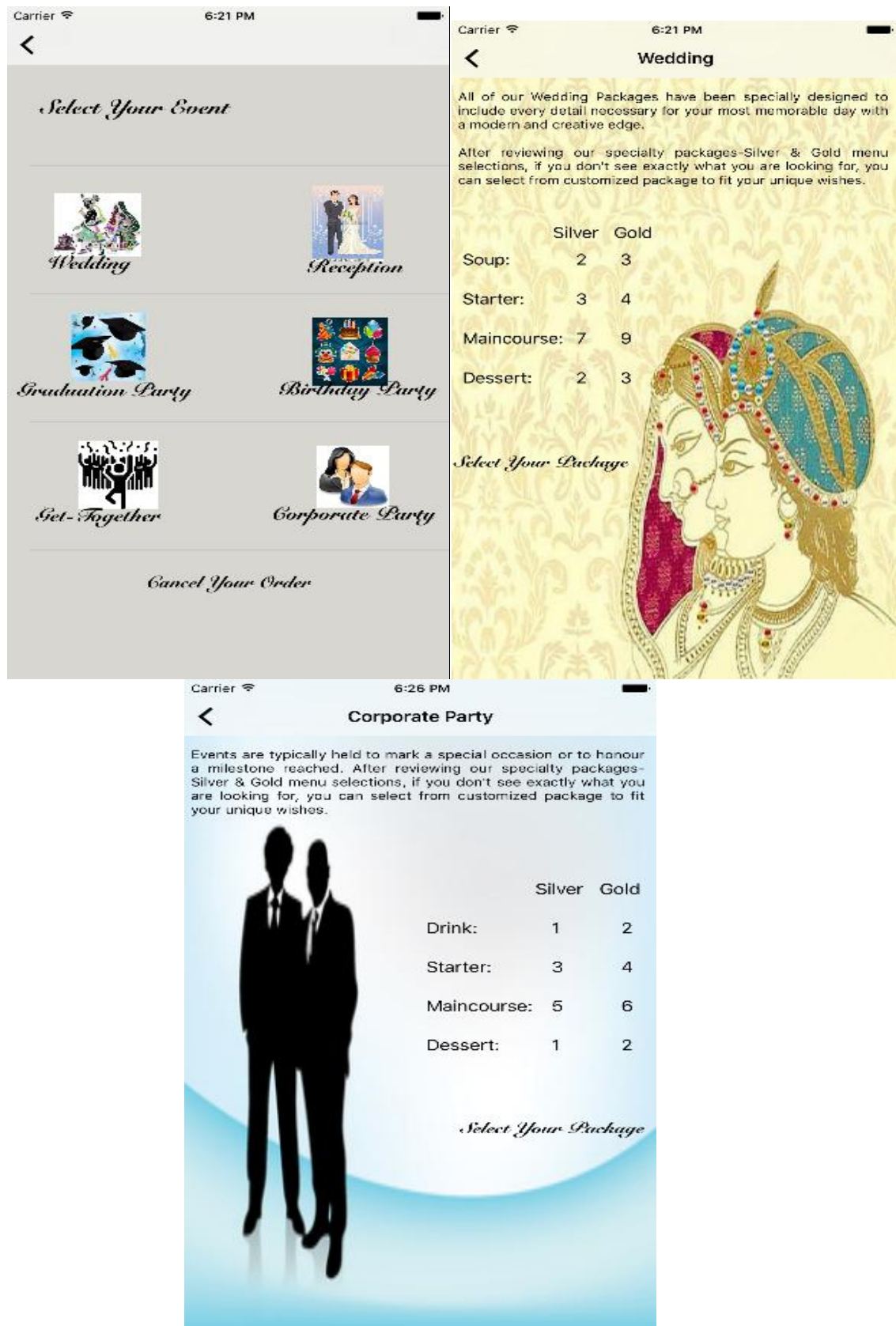


Fig 8.6 Events



## 8.2.6 OTHER EVENTS



Fig 8.7 Other Events

## 8.2.7 MENU PACKAGES

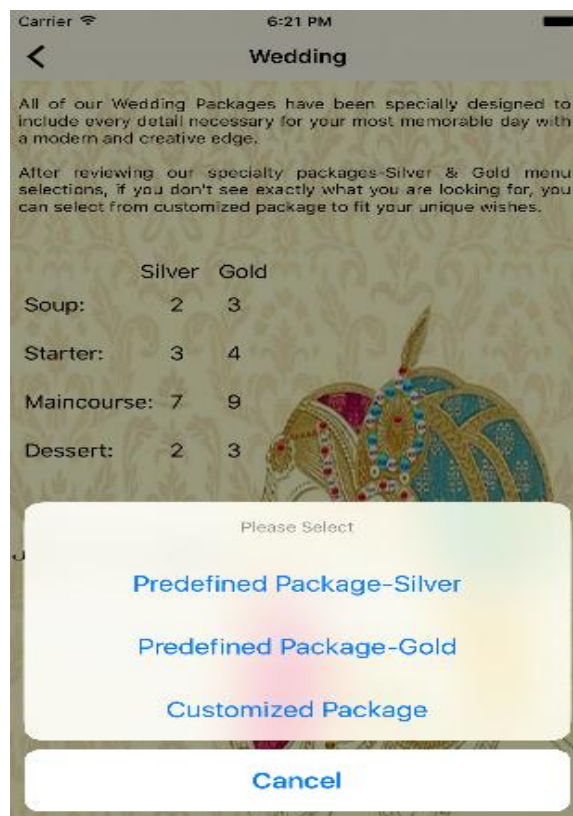


Fig 8.8 Menu Packages

## 8.2.8 PREDEFINED PACKAGE AND CUSTOMIZED PACKAGE

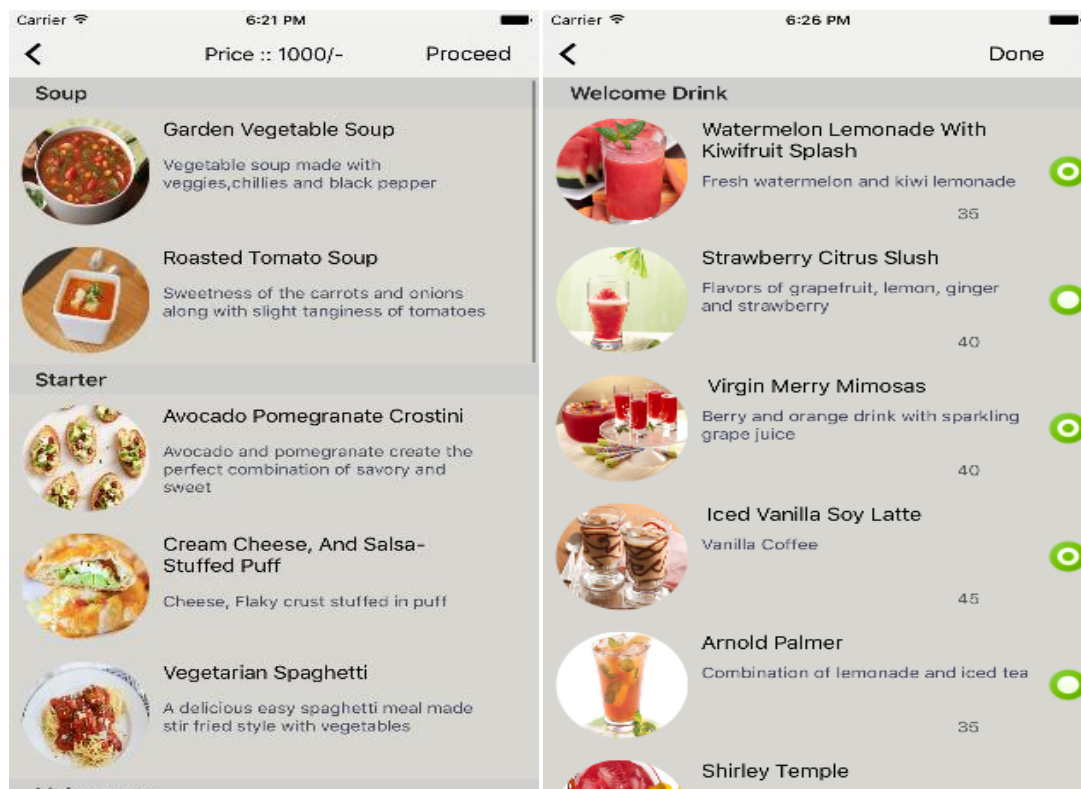


Fig 8.9 Predefined Package and Customized Package



8.2.9 USER INFORMATION

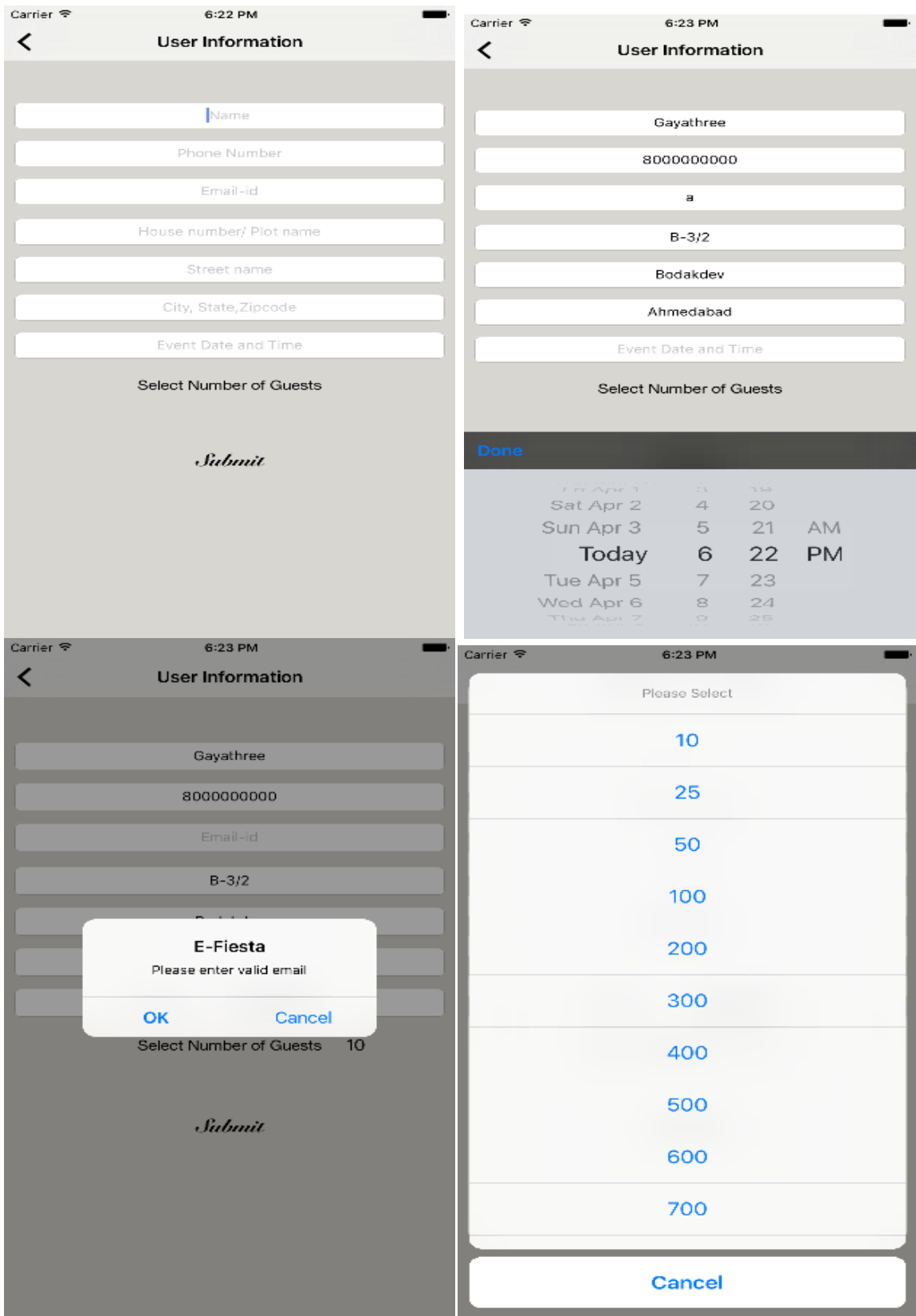


Fig 8.10 User Information

### 8.2.10 ORDER RECEIPT

The figure consists of two side-by-side screenshots of a mobile application interface.

**Left Screenshot: User Information**

The top bar shows a back arrow, the title "User Information", and a "Logout" link. The form contains the following fields:

- Name: Gayathree
- Phone: 8000000000
- Email: a@g.com
- Address: B-3/2
- City: Bodakdev
- State: Ahmedabad
- Date: 03-April-2016 06:22:22

Below the fields, it says "Select Number of Guests 10". At the bottom is a "Submit" button.

**Right Screenshot: Order Receipt**

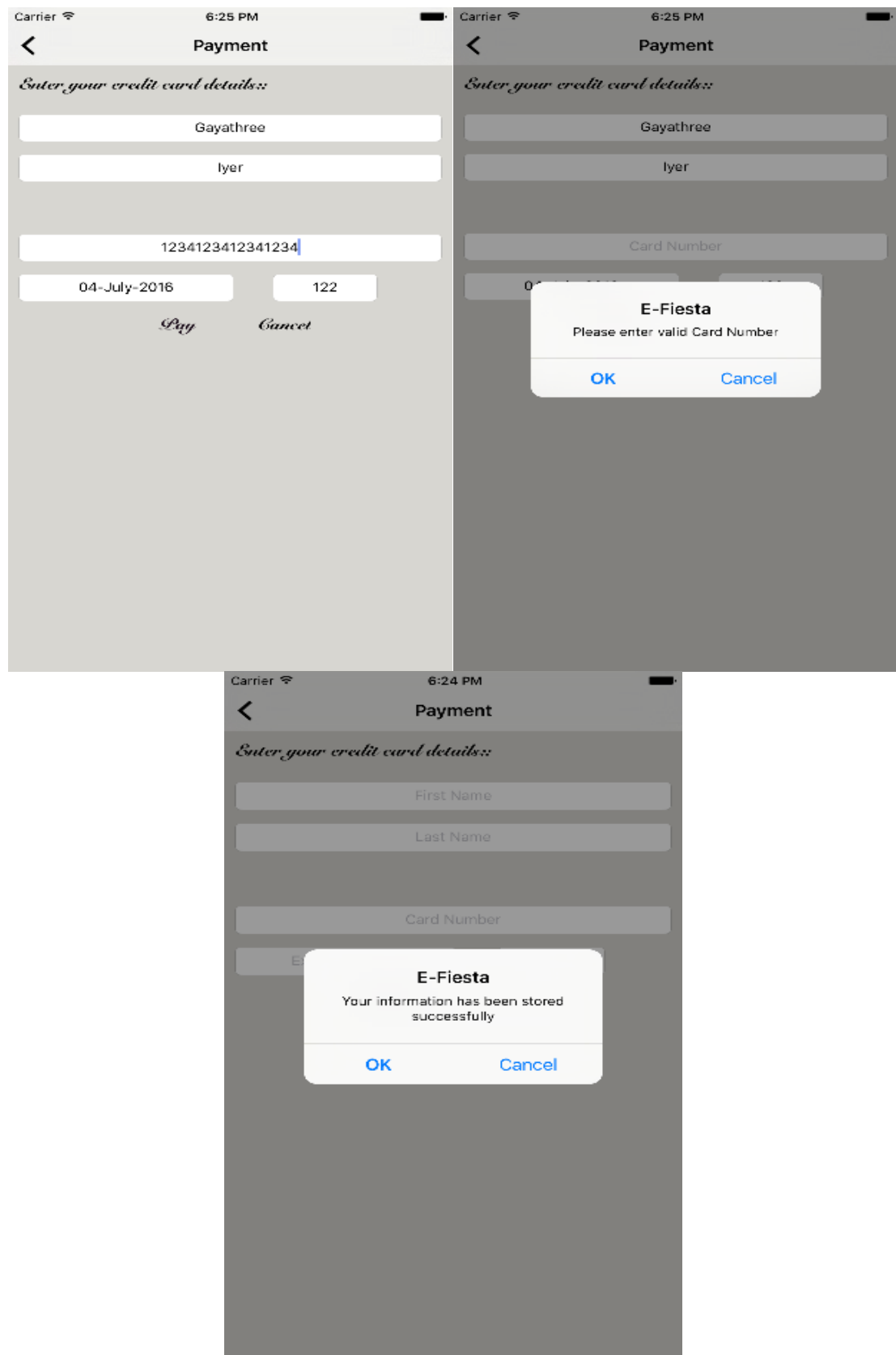
The top bar shows the title "Order Receipt" and a "Logout" link. The content displays the following details:

- Hello Gayathree , your event details are ::
- Package: Wedding Predefined-Silver
- Venue: B-3/2 Bodakdev
- Ahmedabad
- Date & Time: 03-April-2016 06:22:22
- Number of guests: 10
- Cost per person: 1000
- Total Cost: 10000
- Deposit Cost: 5000

At the bottom, there are two buttons: "Proceed with Payment" and "Cancel Order".

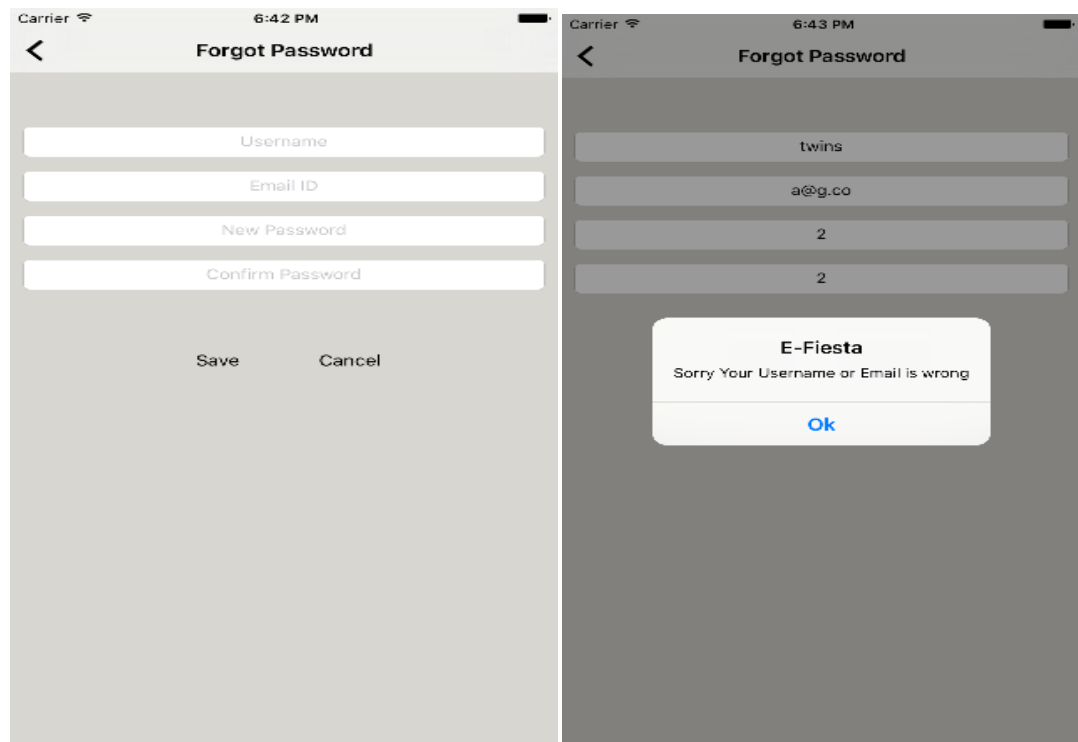
Fig 8.11 Order Receipt

### 8.2.11 PAYMENT



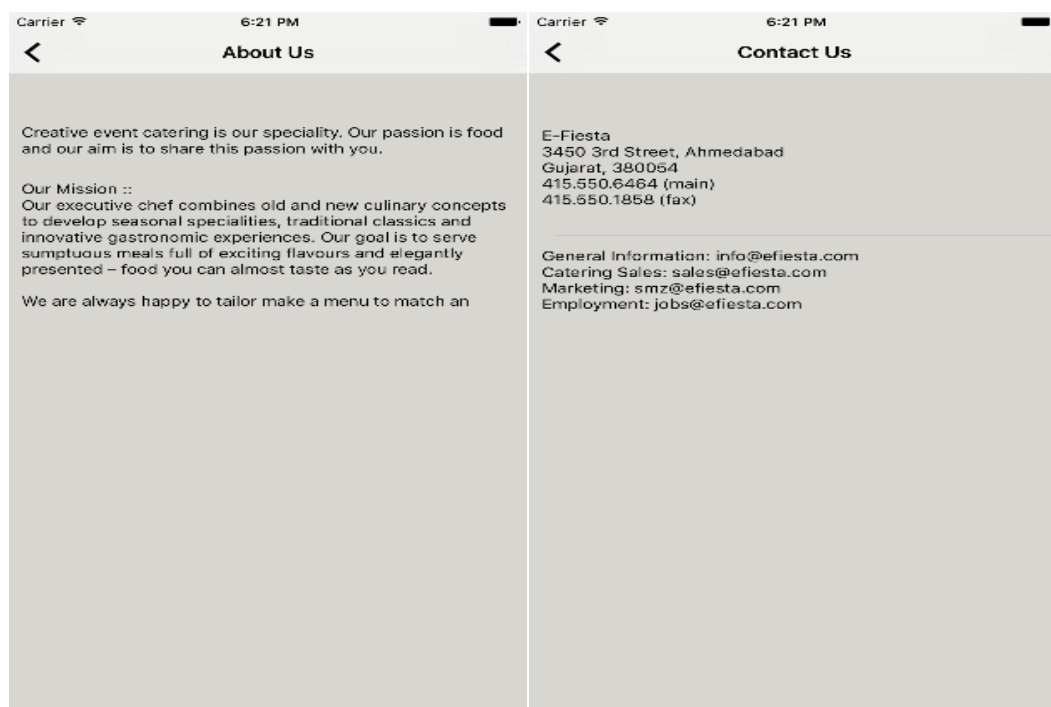
**Fig 8.12 Payment**

### 8.2.12 FORGOT PASSWORD



**Fig 8.13 Forgot Password**

### 8.2.13 ABOUT US AND CONTACT US



**Fig 8.14 About Us and Contact Us**

### **8.2.14 GALLERY**



**Fig 8.15 Gallery**

## 8.2.15 FEEDBACK

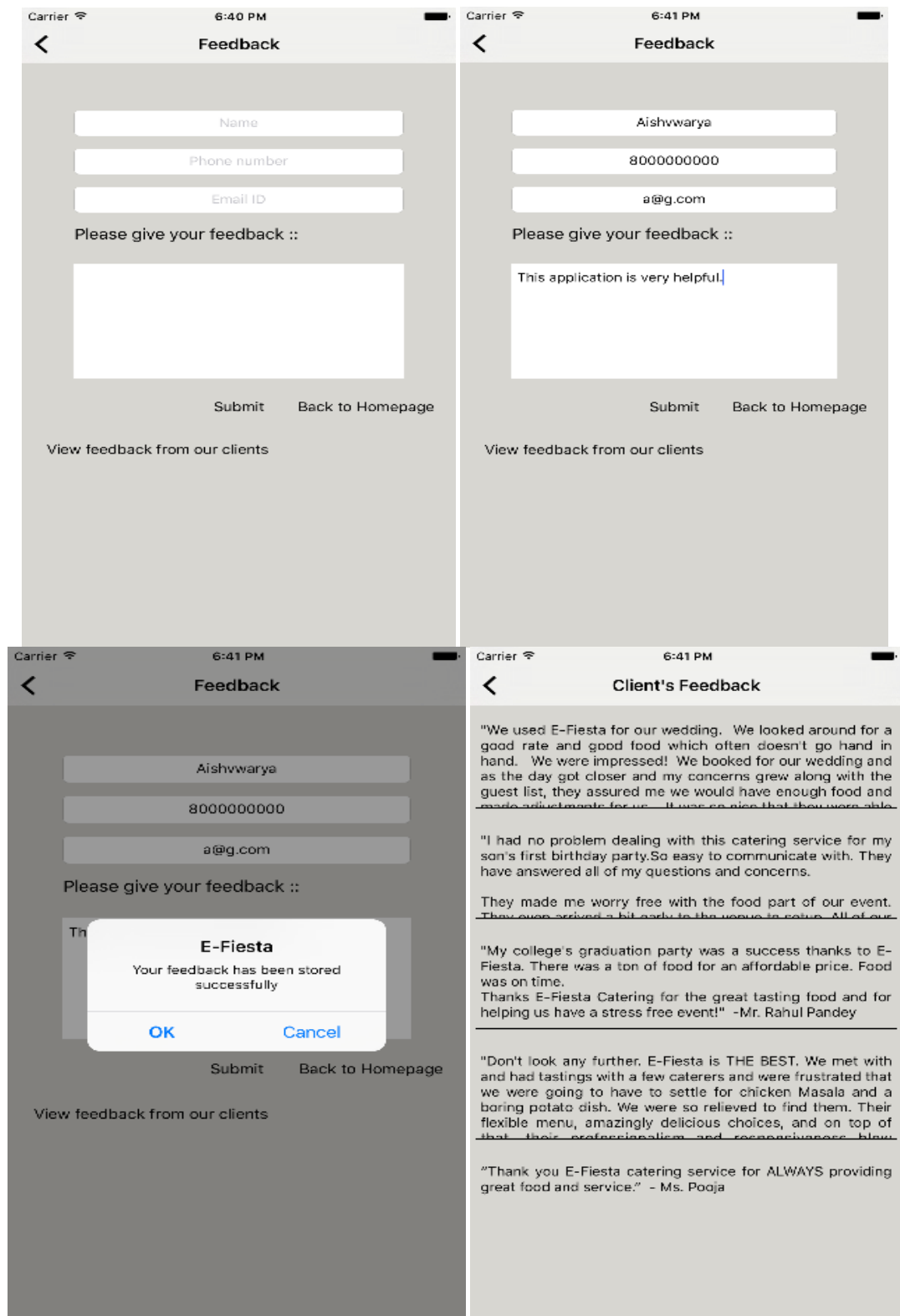


Fig 8.16 Feedback

## 8.2.16 LOCATION

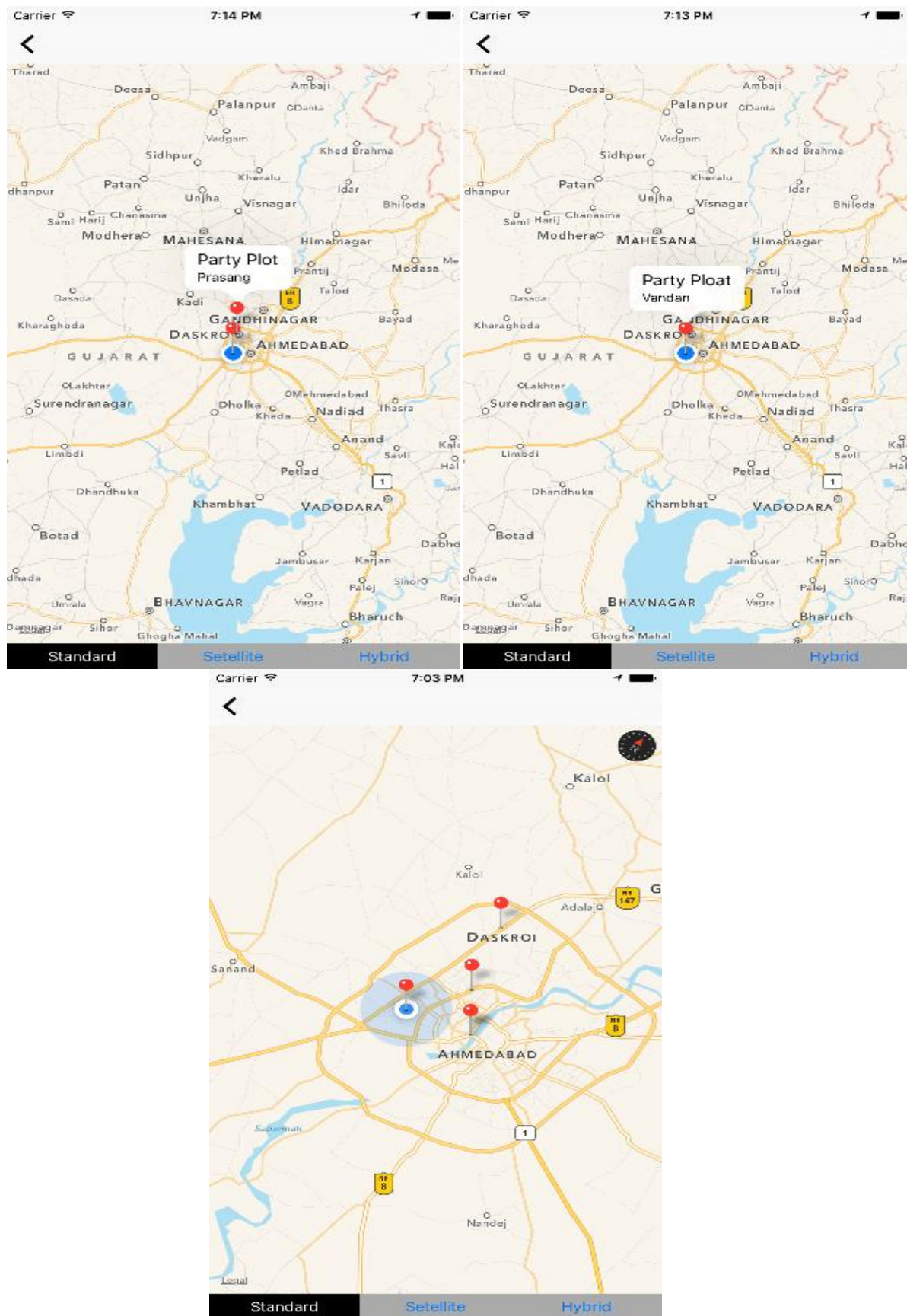


Fig 8.17 Location

## 8.2.17 CANCEL ORDER

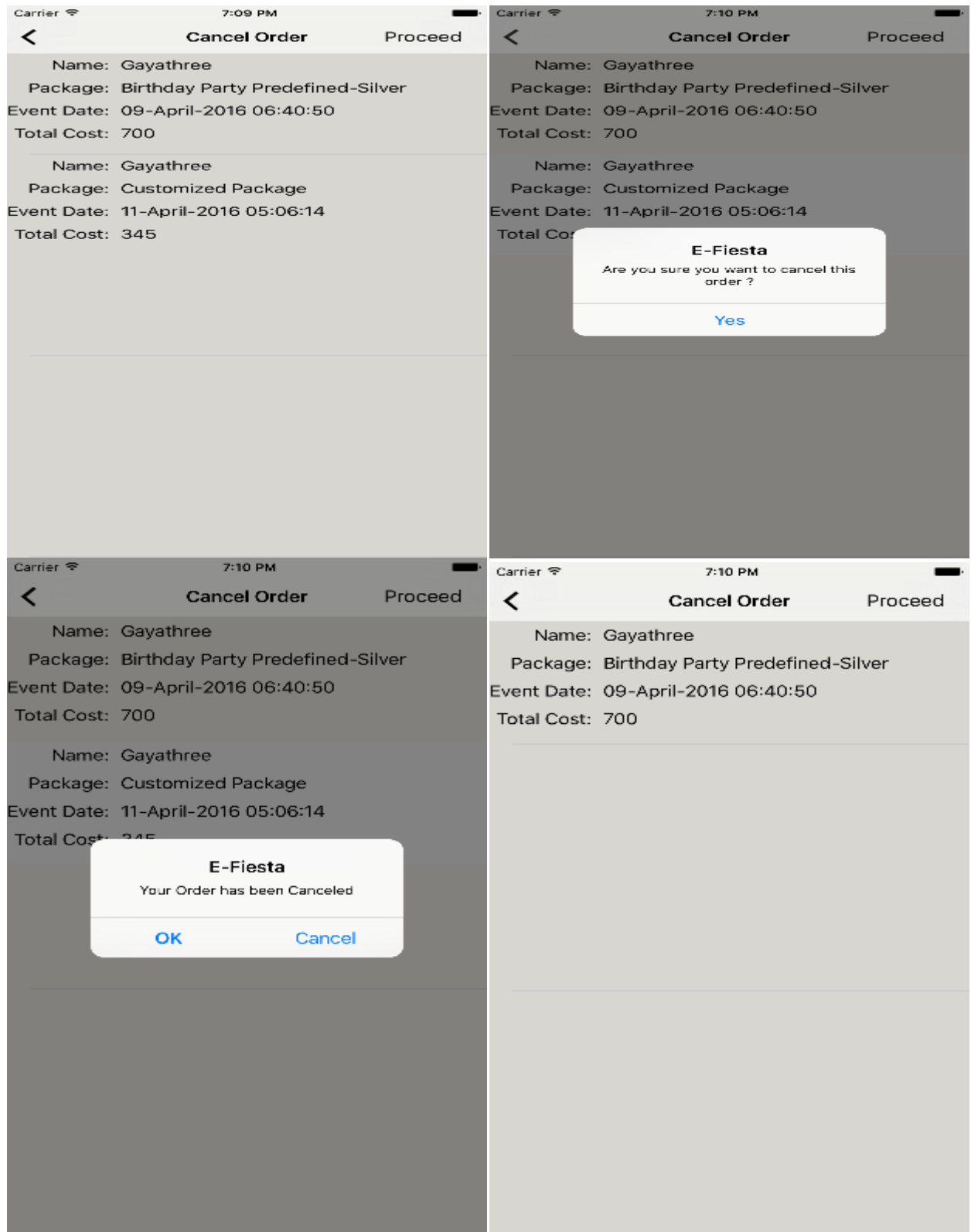


Fig 8.18 Cancel Order



## **CHAPTER 9**

# **LIMITATIONS AND FUTURE ENHANCEMENT**

### **9.1 LIMITATIONS OF E-FIESTA APPLICATION**

### **9.2 FUTURE ENHANCEMENT OF E-FIESTA APPLICATION**

## **CHAPTER 9**

### **LIMITATIONS AND FUTURE ENHANCEMENT**

#### **9.1 LIMITATIONS OF E-FIESTA APPLICATION**

**Security:-** The security risk in E-Fiesta can be-client / server risk, data transfer and virus risk.

When creating an account in your mobile it can be accessed by other people if your phone is misplaced or your email account is hacked.

**High startup cost:-** The various components of cost involved with E-Fiesta app are:

- Connection: - connection cost to the internet.
- Hardware / software: - this includes cost of sophisticated mobiles.
- Maintenance: - This includes cost involved in training of employees and maintenance of preferences and company details.

**Legal issues:-** These issues arise when the user data is fall in the hands of strangers.

**Lack of skilled personnel:-** There is difficulty in finding skilled iphone developers and knowledgeable professionals to manage and a maintain issues.

**Loss of contact with user:-** Sometimes user feels that they doesn't have received sufficient personal attention.

**Uncertainty and lack of information:-** Most of the users have never used any electronic means of interaction with its application as the internet is an unknown mode for them.

#### **9.2 FUTURE ENHANCEMENT OF E-FIESTA APPLICATION**

- We have to try to improve the security issue of this app.
- We have to try to make an app for Windows phone.
- We would try to add as much preferences as possible.

## **CHAPTER 10**

### **CONCLUSION**

This application is very useful for the users who are going to arrange a wedding, reception, birthday party, graduation party, corporate party, Get-together. User need not approach the caterers at his office instead users can see the food item and order a predefined package or customize their own package.

- User can view two predefined packages- Gold and Silver.
- There is a customize package.
- Users can give feedback.
- Users can cancel their previous order.

Hence this application is very useful for catering food requirements in various events.

## **REFERENCE**

- [www.digitalcarryout.com](http://www.digitalcarryout.com)
- [www.cateringsystems.co.uk/](http://www.cateringsystems.co.uk/)
- Fundamentals of Software Engineering by Rajib Mall, 3<sup>rd</sup> edition.
- iOS Programming: The Big Nerd Ranch Guide (4h edition) by Conway, Hillegass & Keur.
- iOS 7 Programming Fundamentals by Neuberg.