

THE SUPERIOR COLLEGE LAHORE



Faculty of Computer Science & IT

Final Year Project PROJECT REPORT (Part-1)

Pak Mellow Trips

Project ID: FYP-MCS-F20-024

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Project Report

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Dedication

First of all, we dedicate our project to Allah Almighty

And to whom the world owes its existence

Muhammad (Peace Be upon Him)

This humble effort is dedicated to

Our beloved parents who brought us

To the level of excellence where we

Are studying today looking for most

Promising and gleaming future ahead

For which they scarified most of the

Time of their life

&

To our respected and genius teachers

Who guided us throughout academic career!

And all those people

Who have remembered us in their prayers!

A lot of thanks for all my teachers!

Acknowledgements

Above all, I owe much tribute to the Almighty God who gave us a life worth living and I thank Him for giving us the strength to accomplish this project. The success and accomplishment of this project stems from efforts and dedication offered by many individuals whose support was either direct or indirect. I thank all of them for their devotion. The author would like to express the sincere gratitude to their project advisor Prof. **Fahad Sabah** for his vigilant supervision, intellectual guidance, constructive advice and very kind attitude throughout the course of project. Appreciate to the efforts of all our teachers whose teachings have brought us to this stage of academic zenith. In the last but not the least, special gratitude with the deepest sense of respects to our parents whose love and affections kept us steep fast and enabled us to attain targets and goals of academic life. The authors are extremely indebted to their brothers and sisters whose constant encouragement provides us with the impetus that was necessary for attaining academic initiatives.

Executive Summary

PAK Mellow Trips (PMT) was developed to provide hard-adventure sport/travel packages with upscale accommodations, gourmet food, and celebrity service providers to wealthy client.

1. Tourism is a growing industry (4% annually), and within the industry adventure travel is growing at 10%.
2. There are few providers of hard-adventure travel to upscale clients.

Virtually all companies that provide “hard” adventure activities appeal to a lower income client. Companies that appeal to a wealthier clientele generally provide “soft” adventure packages. Hard-adventure activities involve difficult physical requirements. They carry a higher level of risk than do “soft” activities. Soft adventure activities may involve some physical exertion; however they involve a low level of risk and can be engaged in by non-athletic people.

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Chapter 1

Introduction

Chapter 1: Introduction

Tour Reservation System has made life very easy for such visitors by saving both their time and energy. Visitor requests for scheme to check the availability of the desired tour package. This information is stored in Tour Information System.

System will check whether the customer is existing or new. New user will enter his personal and tour details for reservation. In turn he/she will be provided with system generated unique ID and password. This login information could be used for further transactions.

When customer is satisfied with tour package he/she would request for reservation of tour. Personal details of new customer is stored in customer-info while the details regarding the tour selected by particular customer is stored in tour-info and the details regarding it would be restructured in Tour Information System.

1.1. Background

This application is develop to provide best travelling services to the customers and travel agents. We have developed tours and travel management system to provide a search platform where a tourist can find their tour places according to their choices. This system also helps to promote responsible and interesting tourism so that people can enjoy their holidays at their favorable places. This system also helps to develop tourism with different cultures so that they enrich the tourism experience and build pride. We develop this system to create and promote forms of tourism that provide healthy interaction opportunities for tourists and locals and increase better understanding of different cultures, customs, lifestyles, traditional knowledge and believe. This system also provides a better way to connect with various events. This system also gives tours related information like which places are tourist attractions, cities, and provinces. Tourist can also get the Map and navigation system and temperature and weather information. Tourist can also book tours through our tours and travels management system. This system also keeps a history of visited places of its users.

1.2. Motivations and Challenges

Tourist motivation can be defined “as the global integrating network of biological and cultural forces which gives value and direction to travel choices, behavior and experience”. (Pearce, Morrison & Rutledge, 1998) as cited by Allan R. Rhodes Espinoza. According to Seaton (1997) motivation is a state of arousal of a drive or need which impels people to activity in pursuit of goals. Once the goals have been achieved the need subsides and the individual returns to the equilibrium-but only briefly because new motives arise as the last one is satisfied.

Secondly, a place “which can provide the traveler with specific facilities that do not exist in his or her own place of residence”, referred in Gray’s theory as sun lust’ (Mansfeld, 1992). It is a common practice to consider traveler or tourist types as potential market segments for travel and tourism marketing (Smith, 1989 as cited in Theobald, 1996). Some of the motives which determine their travel choices are recreation, pleasure, new experiences, cultural interest, shopping.

1.3. Goals and Objectives

PAK MELLOW TRIPS is advanced concept to facilitate peoples. It is a completely social and non-profit app. Its main goal is to show the beauty of Pakistan.

1.4. Literature Review/Existing Solutions

In the present system a customer has to approach various agencies to find details of places and to book tickets. This often requires a lot of time and effort. A customer may not get the desired information from these offices and often the customer may be misguided. It is tedious for a customer to plan a particular journey and have it executed properly.

1.5. Proposed Solution

The proposed system is a web based application and maintains a centralized repository of all related information. The system allows one to easily access the relevant information and make necessary travel arrangements. Users can decide about places they want to visit and make bookings online for travel and accommodation.

1.6. Project Plan

This application is develop to provide best travelling services to the customers and travel agents. We have developed tours and travel management system to provide a search platform where a tourist can find their tour places according to their choices. This system also helps to promote responsible and interesting tourism so that people can enjoy their holidays at their favorable places. This system also helps to develop tourism with different cultures so that they enrich the tourism experience and build pride. We develop this system to create and promote forms of tourism that provide healthy interaction opportunities for tourists and locals and increase better understanding of different cultures, customs, lifestyles, traditional knowledge.

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1.6.1. Work Breakdown Structure

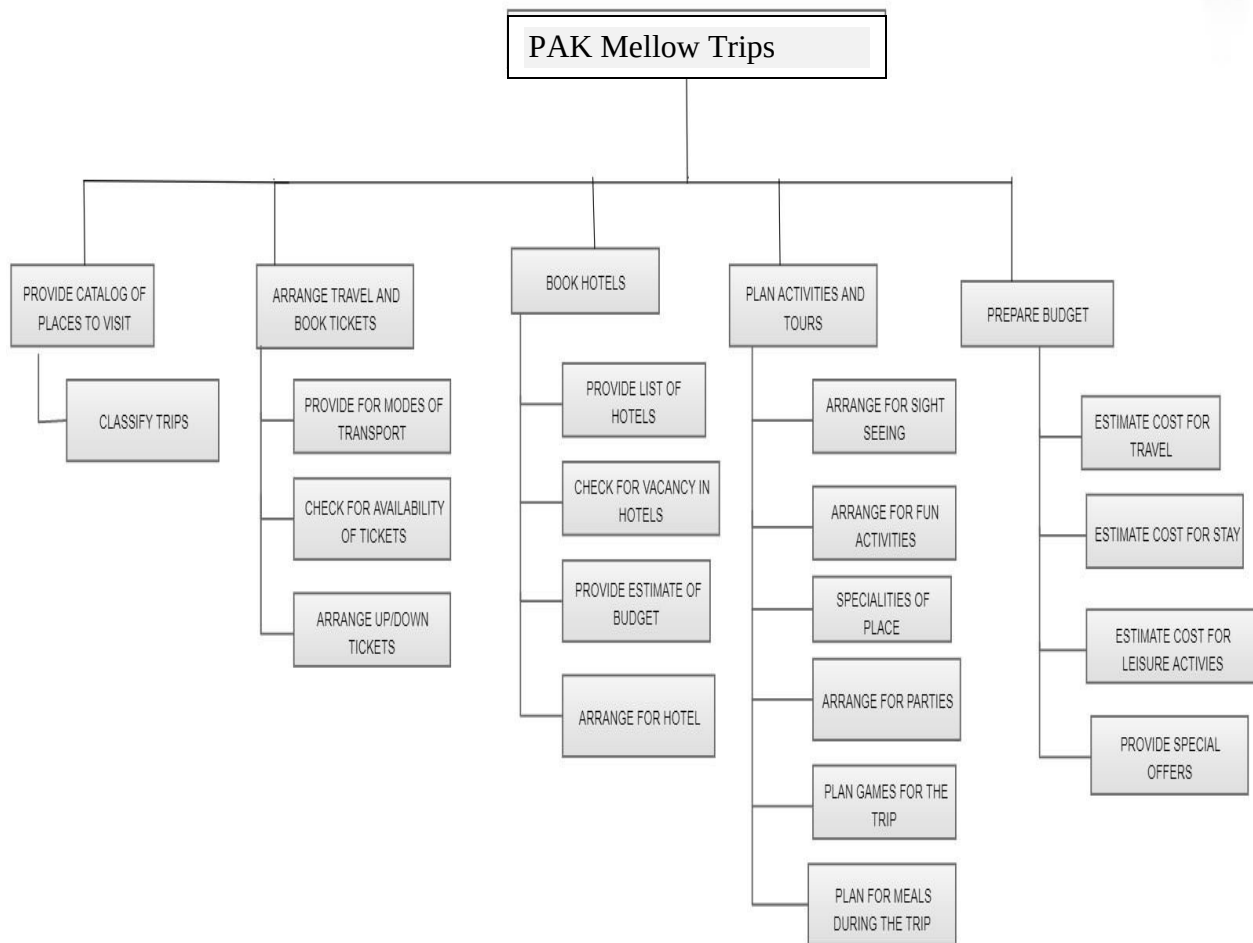


Figure 1: Work break down structure

1.6.2. Roles & Responsibility Matrix

The purpose of roles & responsibility matrix is to identify who will do what.

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1	Requirement gathering	1	technical specification Restricted areas Available solutions.	10days	Ulfat Faryad Hafiz zahid
2	Analysis	2		5 days	Ulfat Faryad Hafiz zahid
3	Architecture	3		21 days	Ulfat Faryad Hafiz zahid
4	Designing	4		15 Days	Ulfat Faryad Hafiz zahid
5	Implementation &development	5		90 Days	Ulfat Faryad Hafiz zahid
6	Database Module	6		28 days	Ulfat Faryad Hafiz zahid
7	Final testing	7		30 days	Ulfat Faryad Hafiz zahid
8	Documentation	8		25 days	Ulfat Faryad Hafiz zahid

1.6.3. Gantt Chart

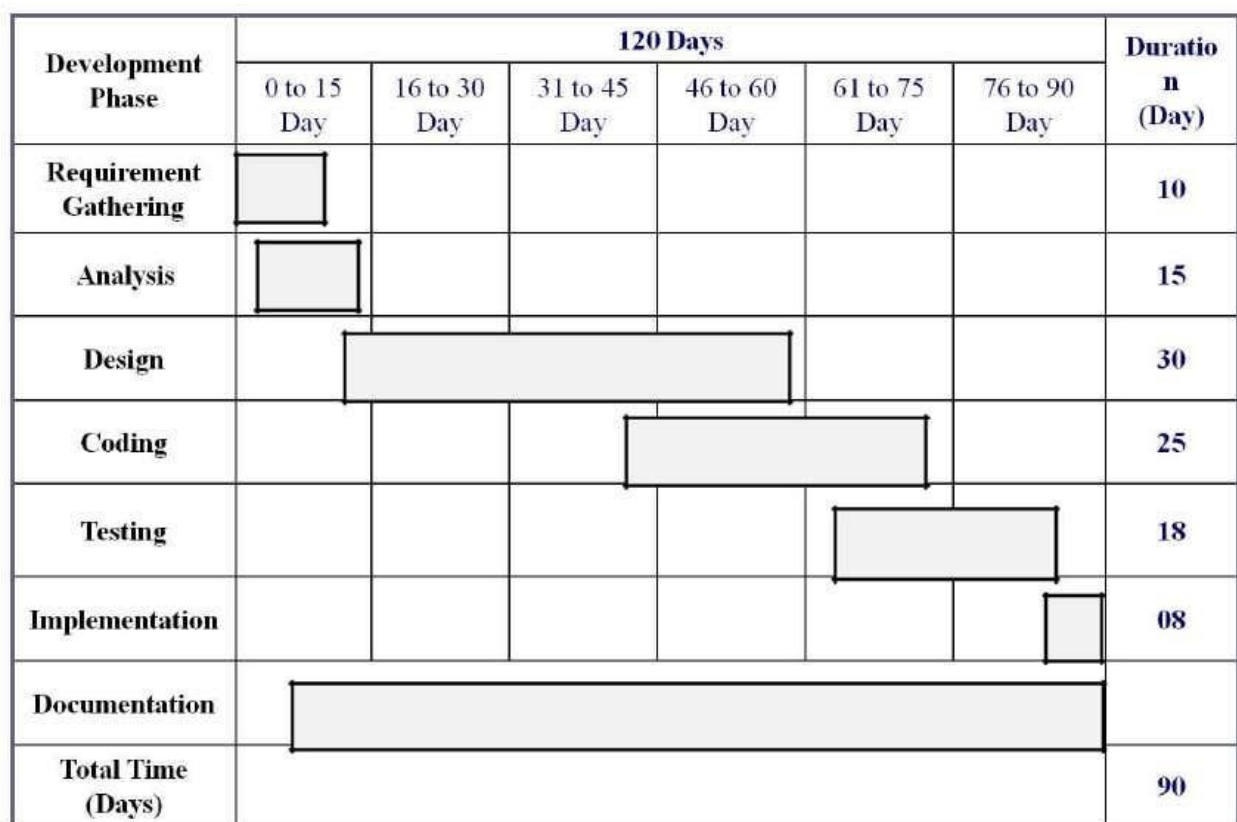


Figure 2: Gantt chart

1.7. Report Outline

- The Requirement was gathered in about 15 Days.
- The Documentation was made in a whole year.

- The coding and data were implanted in almost 4 months.
- The Test was made, and errors were debugged after and through the coding period.
- Validation and finalization in added golden days.

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

2.1. Introduction

2.1.1. Purpose

Pak Mellow Trips has made life very easy for such visitors by saving both their time and energy. Visitor requests for scheme to check the availability of the desired tour package. This information is stored in Tour Information System.

System will check whether the customer is existing or new. New user will enter his personal and tour details for reservation. In turn he/she will be provided with system generated unique ID and password. This login information could be used for further transactions.

When customer is satisfied with tour package he/she would request for reservation of tour. Personal details of new customer is stored in customer-info while the details regarding the tour selected by particular customer is stored in tour-info and the details regarding it would be restructured in Tour Information System.

Existing customer can update his/her personal details in customer-info and cancel reservation for tour from tour-info and changes regarding it are also reflected in Tour Information System.

After confirming the tour package the customer will make payment either online or through staff by personally going at the office. Customer can make payment by PayPal, bank or any other method.

System checks for the validity of staff. Once the payment is done by customer, valid staff will make Ticket Reservation System.

Reserved customer will be able to view details about reservation by providing login information from customer-info and tour-info system. Administrator can add, delete or modify tour schemes from Tour Information System

2.1.2. Document Conventions

This record is. Its degree is to portray the necessities of the Advertisement Management System and its affiliations. This report has been composed after the AMS and considers that future changes to this program ought to be incorporated into this prerequisites determination

record for keeping up its helpful part. To the extent the program usage is concerned while it's not been actualized, this record can be utilized as manual for improvement of framework. CSS, VCSS property, descriptor, and pseudo-class names are specify by single quotes. Values are specifying by single quotes. Document language element names are in upper case Letters. Document language attribute names are in lower case letters and specify by Double quotes.

2.1.3. Intended Audience and Reading Suggestions

This application highly scalable. Its purpose is to enable a sense of solidarity in the community. The app has a societal impact since its aim is to close the gap between the less fortunate people and the more unfortunate in terms of quality of life.

2.1.4. Product Scope

<Provide a short description of the software being specified and its purpose, including relevant benefits, objectives, and goals. Relate the software to corporate goals or business strategies. If a separate vision and scope document is available, refer to it rather than duplicating its contents here.>

2.1.5. References

IEEE standard document for software requirement specification.

2.2. Overall Description

2.2.1. Product Perspective

<Describe the context and origin of the product being specified in this SRS. For example, state whether this product is a follow-on member of a product family, a replacement for certain existing systems, or a new, self-contained product. If the SRS defines a component of a larger system, relate the requirements of the larger system to the functionality of this software and identify interfaces between the two. A simple diagram that shows the major components of the overall system, subsystem interconnections, and external interfaces can be helpful.>

2.2.2. Product Functions

<Summarize the major functions the product must perform or must let the user perform. Details will be provided in Section 3, so only a high level summary (such as a bullet list) is needed here. Organize the functions to make them understandable to any reader of the SRS. A picture of the major groups of related requirements and how they relate, such as a top level data flow diagram or object class diagram, is often effective.>

ADMIN, TOURIST .

The Donor performs operations like Registration and Login into the System. He can also put up food for donation and view all donation requests. The Admin and Donor both can view the Receiver's location. The Admin can also monitor and update the database. The Admin and Receiver both can view the Donor's location. The Receiver can also perform operations like requesting for items, viewing requested food.

2.2.3. User Classes and Characteristics

1. ADMINISTRATOR MODULE:

This module provides administrator related functionality. Administrator manages all information and has access rights to add, delete, edit and view the data related to places, travels, routes, bookings, restaurants etc.

2. TRAVELS MODULE:

This module provides the details of various travel agencies. A user can select the appropriate agency depending on convenience and accessibility.

3. ROUTES MODULE:

This module provides information related to various routes connecting sources and destinations. For each route, information such as source, destination, fare, reservation details, pick up points etc are provided. Only administrator can add, delete, edit and manage the data. Users can only view the information.

4. RESERVATIONS MODULE:

This module provides functionalities that allow a user to book tickets or cancel previously booked tickets. The module maintains the details of all reservations made so far and allows administrator to either confirm or reject the bookings.

FEEDBACK MODULE:

Users of this application can post their opinions, complaints and suggestions regarding this portal and services to the administrator. Accordingly, the administrator can take various steps to act on the complaints and suggestions.

2.2.4. Operating Environment

This system will operate in browsers like Mozilla, Firefox, and Opera and for their different version also.

- It can be open on window, android and iPhone.
- The processor should be core 2 duo or above.
- The processor's speed should be 2.8 GHz or greater.
- Ram should be or greater than 512 MB.

2.2.5. Design and Implementation Constraints

There are the following design and implementation constraints that we should keep in our mind during developing of the application.

- This system is working for single server
- Limited to HTTP/HTTPS.
- Sketch or proto.io for prototyping the system
- XAMPP server for the local host
- MYSQL used for manage the database specification
- Operating system required for this application is windows kit Kat 4.0 android or any other higher version

2.2.6. User Documentation

Latterly, the uses of mobile devices and wireless network applications became more and more widespread. Project has solved the issue that people donate food manually by visiting each organization number of times. It provides single platform for donors and consumers to donate food timely and securely to the needy people

2.2.7. Assumptions and Dependencies

There are assumptions and dependencies that should be fulfilled for use of this application:

- User should have basic knowledge of English language and computer and smart phone usage.
- Admin monitoring the use of Website/application. Users have basic understanding on how to operate computer and computer software.

2.3. External Interface Requirements

2.3.1. Hardware Interfaces

This is an online system so the hardware interfaces that are going to be used are the hardware components that are required for the internet access. These have been mentioned in the following.

- WLAN
- WAN
- LAN Ethernet cross-cable Modem Router.

2.3.2. Software Interfaces

• External machine interfaces

- External Machine interface is not required since computation will be done on Windows OS and Android OS.

• External system interfaces

- This will only include the Firebase database for the products.

• Human interface

- The software will use a Graphical User Interface coded in XML.

Communications Interfaces

The PAK mellow trips system shall use the HTTP protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

System Features

The system is going to consist of multiple modules, each separately developed with their own features.

Register Account

Description and Priority If customer/user wants to buy the product then he/she must be registered, unregistered user can't able to use our auto generate LMS. For this purpose, user/customer will register to the system.

Stimulus/Response Sequences

- User first clicks on the button or link to initiate registration process.
- System prompts the user to fill out his/her first name, last name, address, email address, and their password.
- User enters fields.
- System validates the user's information
- System creates a new account for the user.

Functional Requirements

REQ-SF1-1: System must be able to verify and validate information.

REQ-SF1-2: The system must encrypt the password of the user to provide security.

Login/Logout Account

Description and Priority

This feature used by the user to login into system. A user must login with his user name and password to the system after registration. If they are invalid, the user not allowed entering the system

Stimulus/Response Sequences

- User clicks on the button or link to initiate the login process.
- System prompts the user for his/her email and password.
- System verifies the information.
- System displays account home page to the user.

- User clicks the button or link in order to initiate logout process.

Functional Requirements

REQ-SF2-1: Username and password will be provided after user registration is confirmed.

REQ-SF2-2: Password should be hidden from others while typing it in the field.

2.4. Other Nonfunctional Requirements

2.4.1. Performance Requirements

Ensure to solve the faults in the system within 24 hours. The performance requirements of the tourist management system the tourism information service system can accept at least 500 customers to visit at the same time, and ensure the normal operation of the system. Under the normal network, the response time shown in the electronic map is within 3 seconds, and the response time displayed in the text information is within 2 seconds. It needs a database table with the maximum number of lines of 10000 at least, more than 40 GB disk capacity and 512 MB memory. The security requirements of the tourism information service system, because the network is open, when admin or customers release the tourism information, it will cause the problem about the system network security. Therefore, the system needs the high system security, and now it will mainly check from the aspects of the tourist service system security, network security and data security.

2.4.2. Safety Requirements

- Only the registered customers can enter the system, and it will verify the customer ID when log-in to the system.
- Allow the administrators to allocate the customer's identity permissions, but it will provide the real-time identity allocation so as to ensure the security of the system.
- Some specific functions can only be run by the administrator, making the functional separation to the administrator and the customer.
- Ensure the safety of the system data and offer the data backup for the database. In addition, the most

Important thing is to ensure the security of network equipment such as the switches, servers and the firewall. What is more, it has to restrict to visit the system for the unauthorized customer.

2.4.3. Security Requirements

Customers can access the system through registering and confirming in the system, and the customer cannot acquire any service information from the tourist management system in the case of without the registration.

2.4.4. Business Rules

- If user want to perform some crud operation than he/she has to first sign up.
- User has to follow terms and conditions of website.

Chapter 3

Use Case Analysis

System Analysis

This chapter describes about system use cases and how the different actors are interacting with the system. This system is all about use case of system and role we assign and categorize the user of solution. We describe the all terms about the use case model and use case diagram of every role. At the end we make a proper dressed use case model of our project.

3.1. Use Case Model

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses.

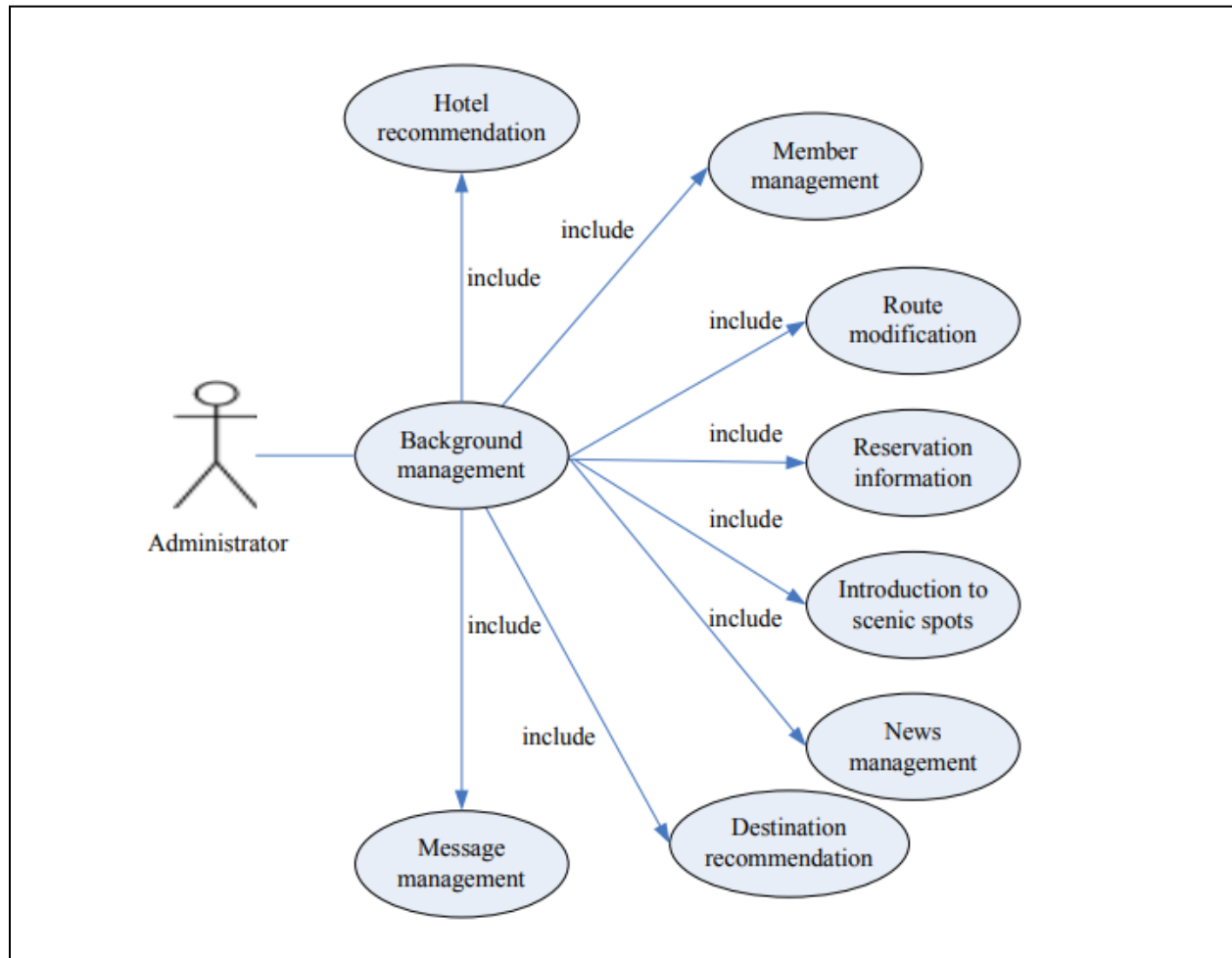
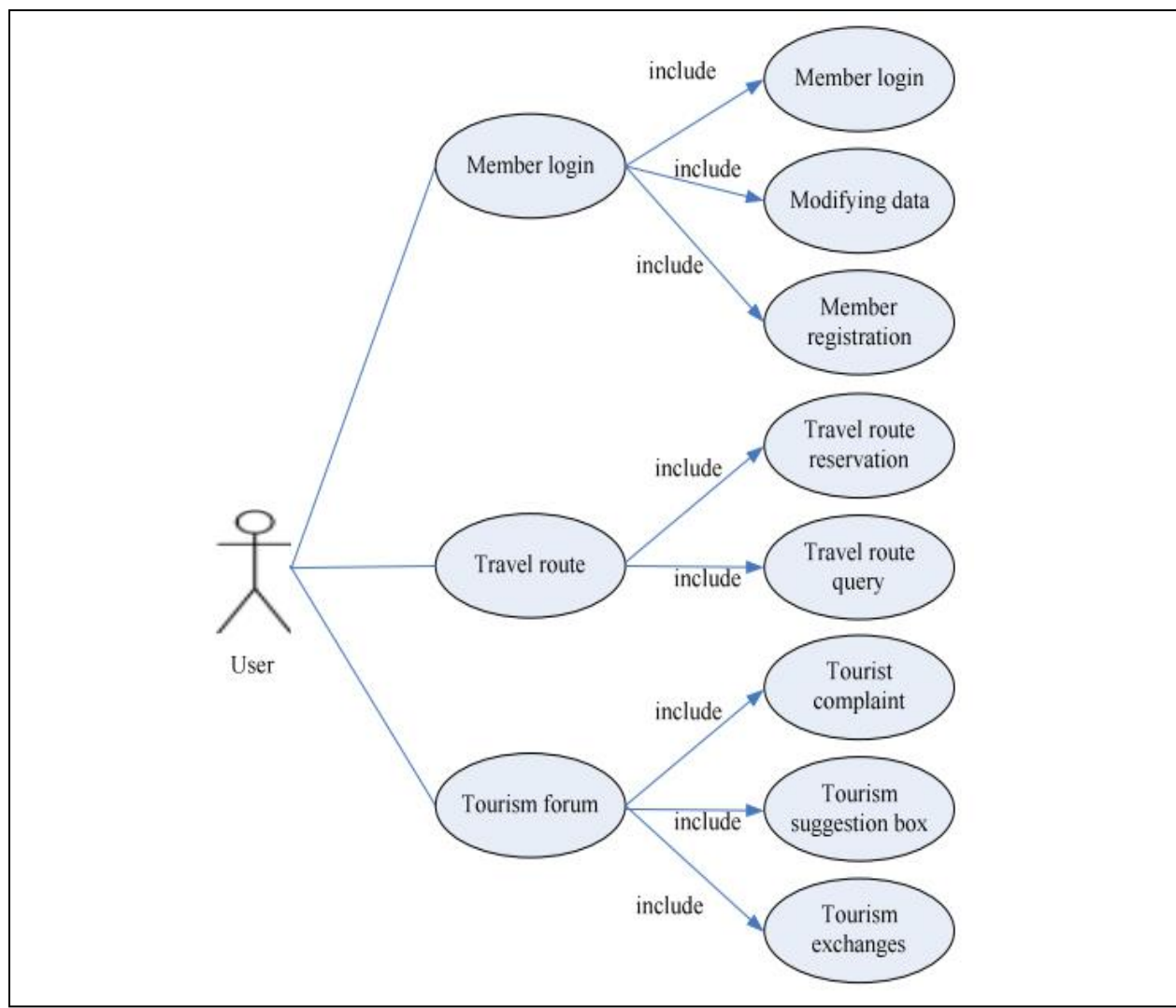
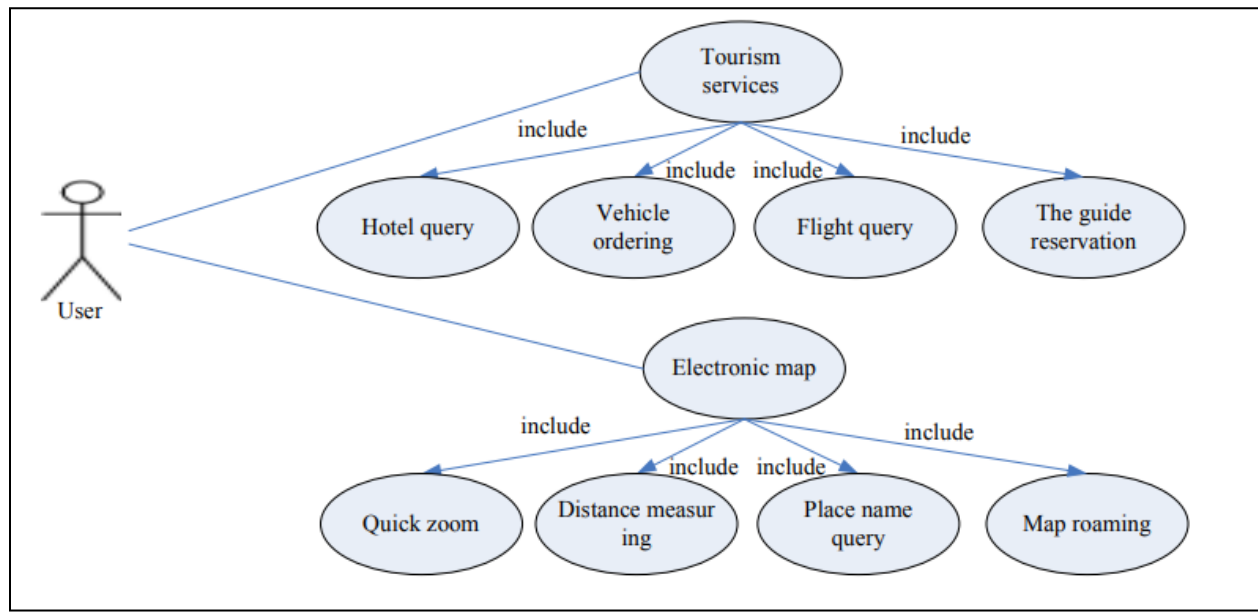
Use case model for Admin:

Figure 3:: Login Interface

Use Case Model for User





(1) Customer login: Its function is to complete the login information registration of the new customer and modify the registered customer information.

(2) Making the travel route: Its function is to query the suitable tourist route and enable to book the workable tour line, and the tourist route query includes the different routes of domestic, province, Hong Kong, Macau and the neighborhood.

(3) Tourism services: Its function is to complete the booking for hotels, flights, tour guides and transportation.

(4) Electronic map: Its function is to calculate the distance between the scenic spots, zoom the map for checking and find the place-name information according to the scenic spot.

(5) Tourism forum: Its function is to complete the travel advice and complaints from the tourists and tourist information communication.

3.2. Fully Dressed Use Cases

1	use case	Register
	Iteration	1, last modification;
	Primary actor	Customer
	Goal in context	The customers create their account.
	Precondition	-
	Trigger	The customers want to create their account.
	Scenario	1. The customers access to the website or application.
		2. The customers select register to be a user member.
		3. The system display the register page to fill the customer's information.
		4. The customers input required information.
		5. The customers confirm the registration.
		6. The system checks the right and unique of information.
		7. The system records the customer's data into the database and provide and then services to gain access.
	Exception	1. If the information (ex. username or email) is used already, notify the customers to input the information again
		2. The password is not follow on rule(ex. 6-8 characters with alphabets and number).
2	use case	Log in
	Iteration	1, last modification;
	Primary actor	Customer or Manager
	Goal in context	To let the customer access the web or application.
	Precondition	The customers must be a member.
	Trigger	When customers or admin want to access the web or application.
	Scenario	1. The customers input username and password.
		2. The system checks the correct of information.
		3. The system records and then provides the access.
	Exception	If customer does not have an account, customer needs to register.
	Post-condition	1. Log in records' stored in data report.

3	use case	Booking
	Primary actor	Customer
	Goal in context	The customers can book hotel or transportation.
	Precondition	The user must log in to account before booking. Internet connection is needed before connecting to the website.
	Trigger	Customer wants to reserve his or her services by login to the website.
	Scenario	1. The customers need to register first. If customers have an account, then login.
		2. The customers log in to the website.
		3. The customers select date time of check in and check out.
		4. The customers select location or near area.
		5. The customers click button go, and select some hotel.
		6. The customers book the hotel. Then it will keep in history to confirm the information.
		7. The data report sends the information to manager and analyze information to create the promotion.
	Exception	1. If customer does not have an account, customer needs to register.
		3. If the user ID and password are incorrect, the system will prompt to customer to retry to log in again.
	Post-condition	Manager receive booked request, and customer can get and view history.
4	use case	Create package
	Primary actor	Customer
	Goal in context	The customers can use this system for calculate time, different price on each transportation Between travel.
	Precondition	The customers must log in and search the place.
	Trigger	The customers want find time, price, ways to destination.
	Scenario	1. The customers log in to website or open application.
		2. The customers search for place such as hotel.
		3. The customers select some place.
		4. The system shows detail of ways to go, transportation with price and time.
	Exception	1. If customer does not have an account, customer needs to register.

		2. Customer has to search or select some place.
5	use case	Search
	Primary actor	Customer
	Goal in context	The customers can find the hotel or place that they want to go.
	Precondition	The user must log in to account and select location and date time.
	Trigger	The customers want to search the hotel.
	Scenario	1. The customers need to register first. If customer have an account, then login.
		2. The customers log in to the website.
		3. The customers select some place or area.
		4. The customers select date time of check in and check out.
		5. The customers click on button search.
		6. Website or application shows the entire selected area hotel.
		1.If customer does not have an account, customer needs to register.
	Exception	2.If the user ID and password are incorrect, the system will prompt to customer to retry to log in again.

Chapter 4

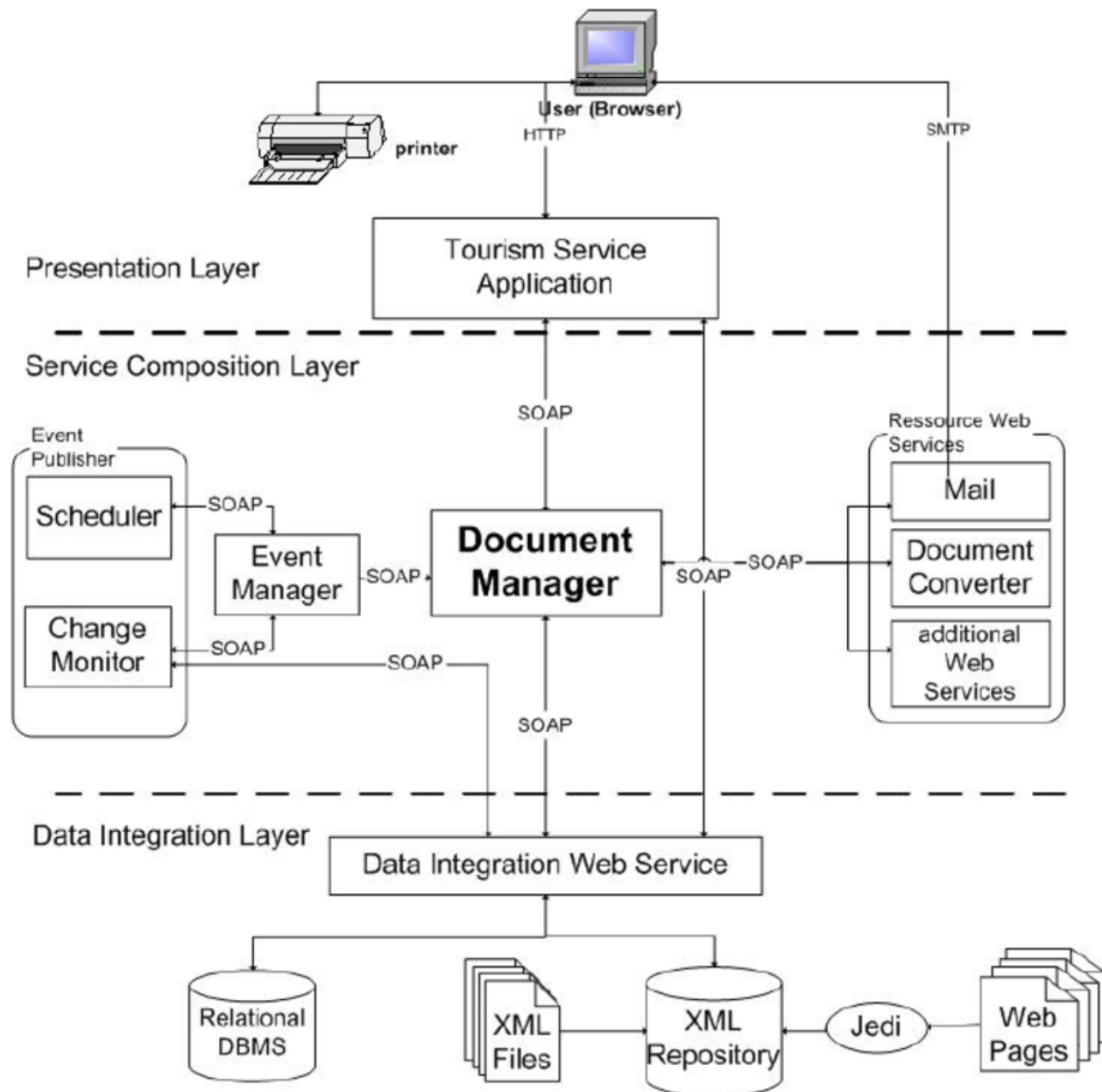
System Design

Chapter 4: System Design

The Chapter is all about how the software is going to work and how will the processes be executed as we see we have several diagrams that shows how really is the system performing and what will be the requirements to perform the operations required tasks as well as the diagrams and data clearly describes the process and shows a great help in understanding the

4.1. Architecture Diagram

Following Architecture Diagram of travel system is a graphical representation to understand, clarify, and communicate ideas about the game structure and the user requirements that the game must support.



4.2. Domain Model

A domain model is a formal representation of a knowledge domain with concepts, roles, data types, individuals, and rules, typically grounded in a description logic we use spiral model Spiral model in software engineering is also a step by step procedure to develop new software.

It is mainly used when there is a dependency between the models. Each phase in the spiral model begins with design and ends with the client reviewing the process

.planning and designing

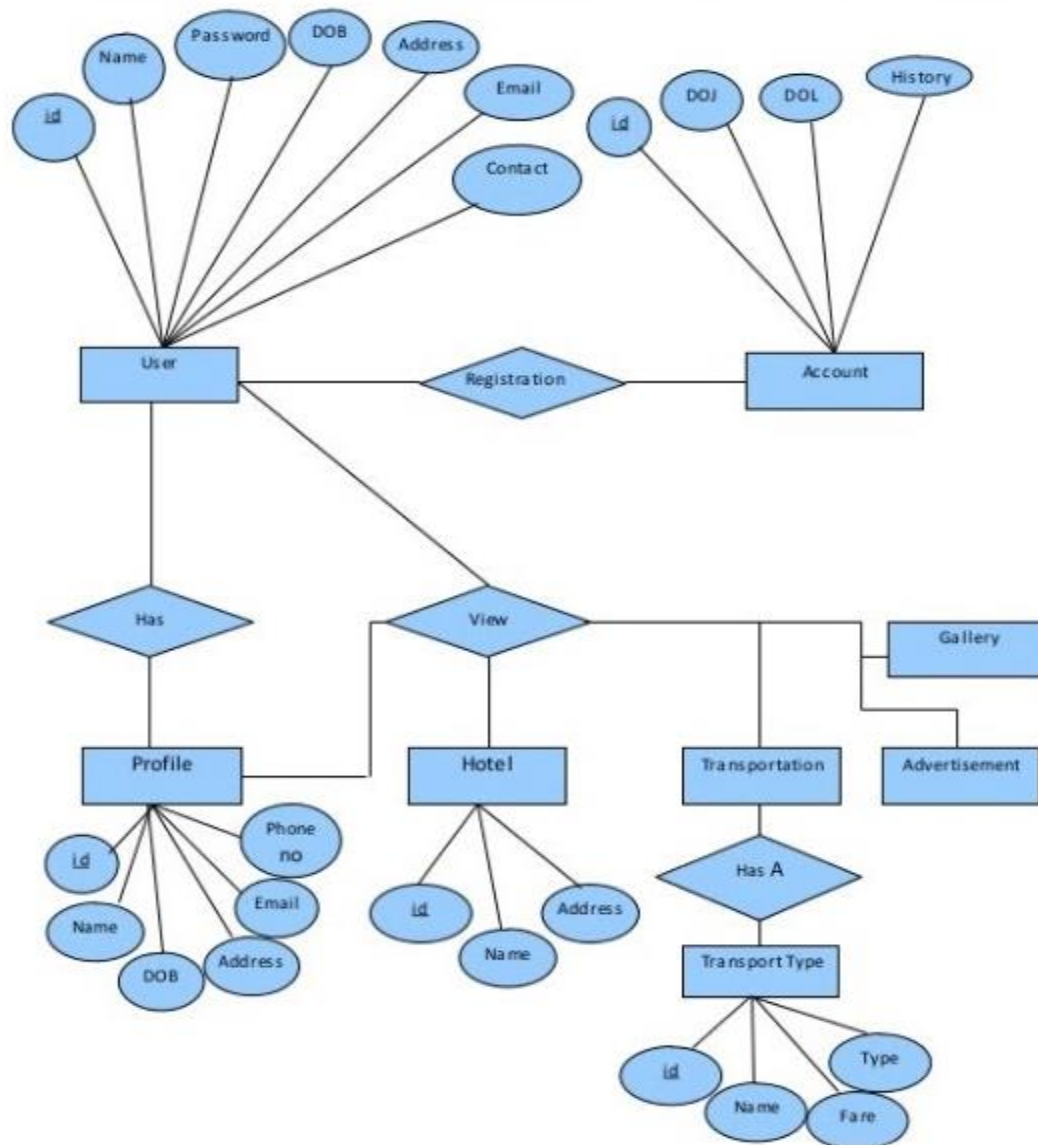
Implementation

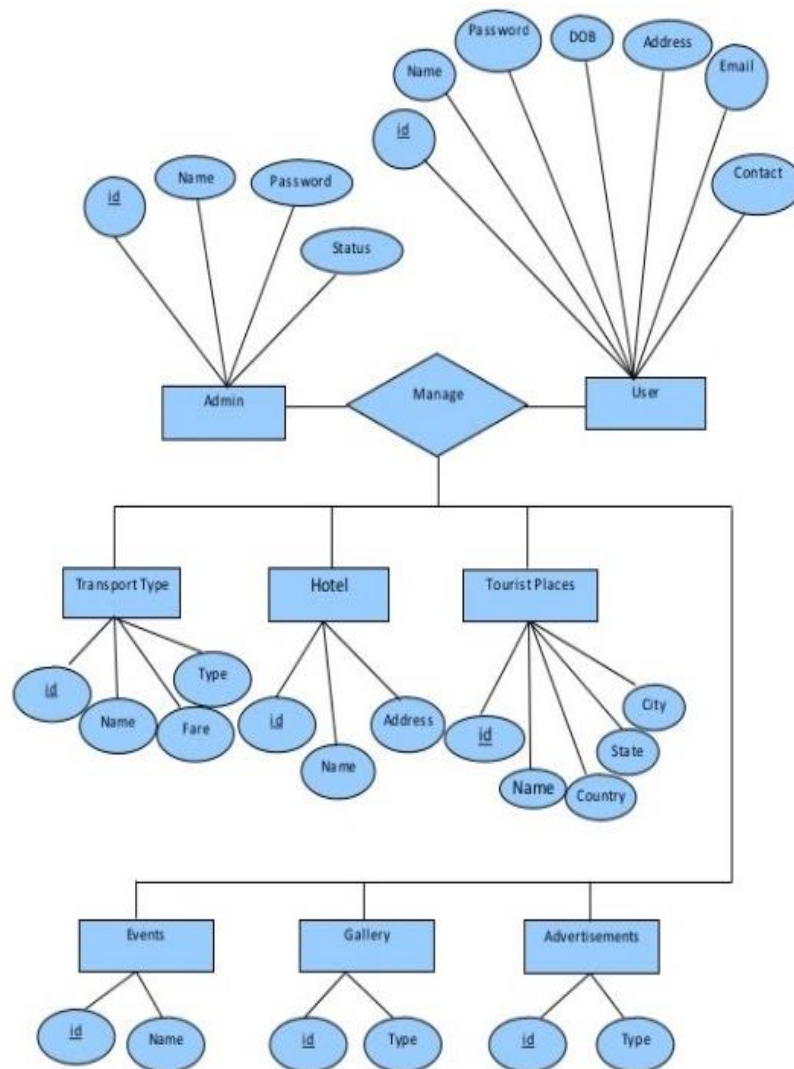
Play test

Evaluating

4.3. Entity Relationship Diagram with data dictionary

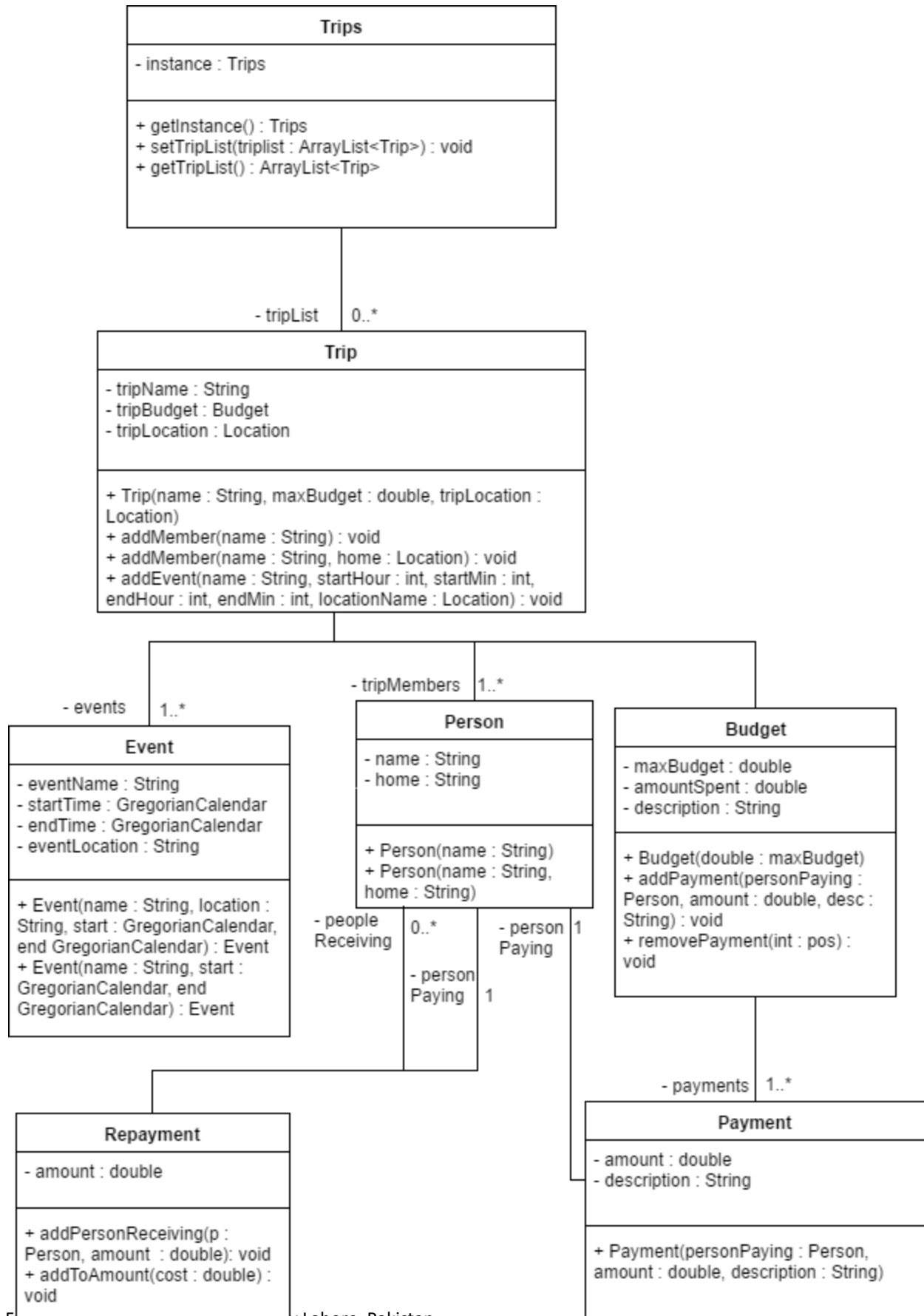
An entity-relationship diagram (ERD) is a data modeling technique that graphically illustrates an information system's entities and the relationships between those entities.





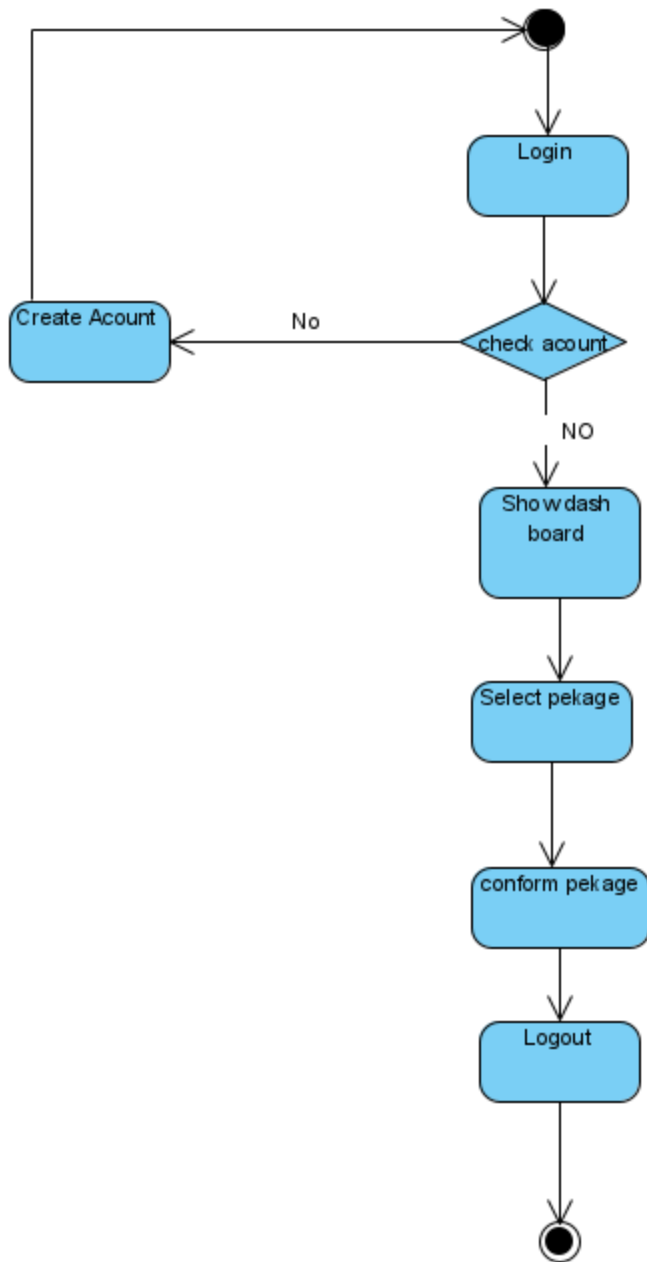
4.4. Class Diagram

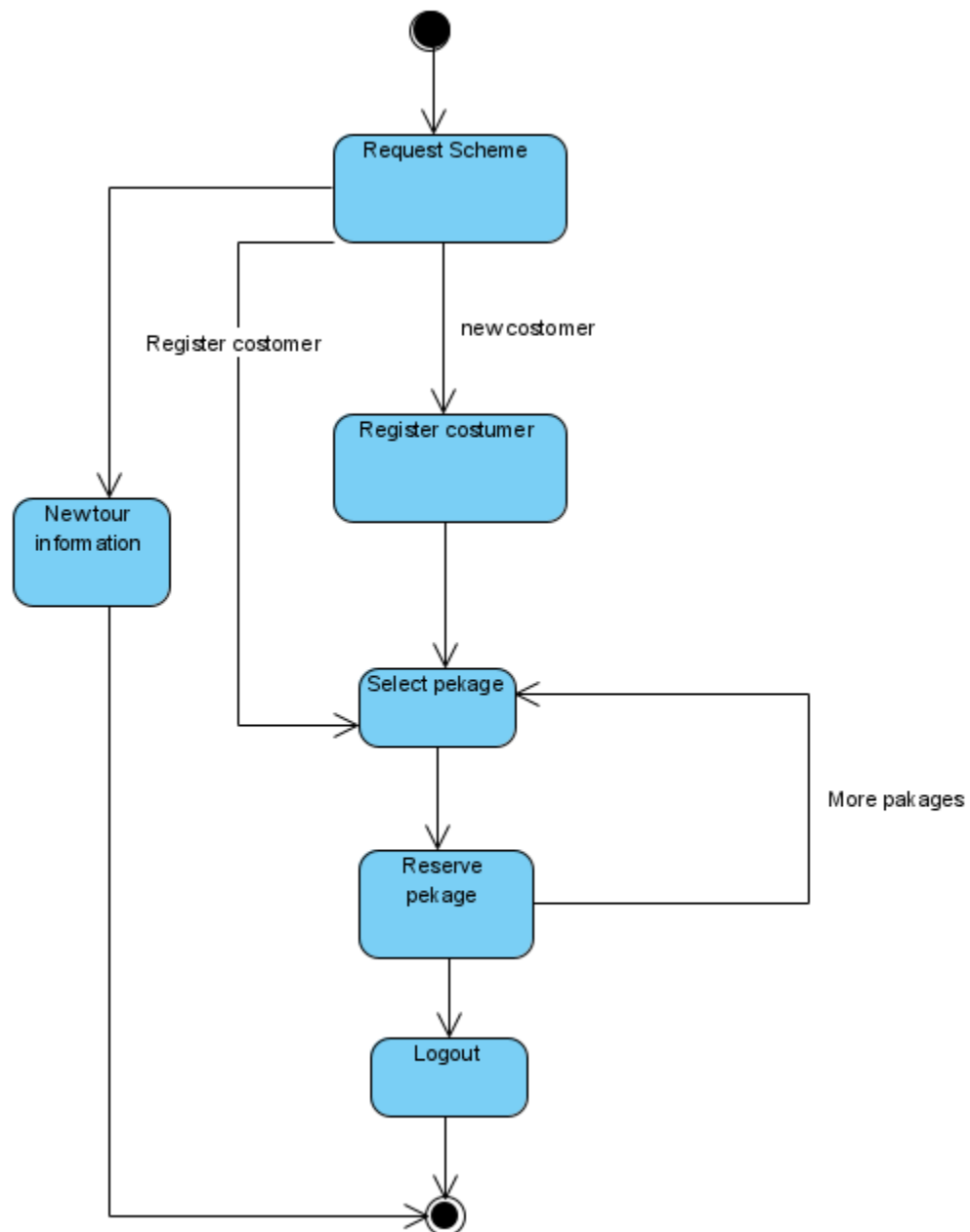
The following Class Diagram of our project gives an overview of Pak mellow trips system by displaying its classes, attributes and operations:



4.5. Sequence / Collaboration Diagram

The following Sequence Diagram shows system's objects interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the system





4.6. Operation contracts

<u>Operation Name:</u>	Register user(name, email, password, phone, address)
<u>Cross Reference:</u>	Register a new user
<u>Pre Conditions:</u>	➤ User must be connect to the network
<u>Post Conditions:</u>	• Add user detail to the database • Assign unique id to the customer
<u>Operation Name:</u>	Login(email, password);
<u>Cross Reference:</u>	User Authentication
<u>Pre Conditions:</u>	➤ User must be Registered by the system
<u>Post Conditions:</u>	➤ User Object Created ➤ Initialize id and password to this object from parameters of this function ➤ Match user ID and password from database ➤ If user id is available and password matched then login success ➤ Show dashboard
<u>Operation Name:</u>	Insert data
<u>Cross Reference:</u>	Insert data in database system
<u>Pre Conditions:</u>	➤ User must be Admin ➤ Admin should be log-in
<u>Post Conditions:</u>	➤ initialize id and Registration-No to this object from parameters of this function ➤ Save this object to database ➤ Save the given data in database
<u>Operation Name:</u>	View data
<u>Cross Reference:</u>	View package detail, user detail, feedback, rating,

<u>Pre Conditions:</u>	➤ User must be Admin ➤ Admin should be log-in ➤ The data should be stored
<u>Post Conditions:</u>	➤ Create view object ➤ View data successfully ➤ Logout from system
<u>Operation Name:</u>	Delete data
<u>Cross Reference:</u>	Delete package detail, user detail
<u>Pre Conditions:</u>	➤ User must be Admin ➤ Admin should be log-in ➤ The data should be stored
<u>Post Conditions:</u>	➤ Create delete object ➤ Delete data successfully ➤ Logout from system
<u>Operation Name:</u>	Search data
<u>Cross Reference:</u>	Search package detail, user detail
<u>Pre Conditions:</u>	➤ User must be Admin ➤ Admin should be log-in ➤ The data should be stored
<u>Post Conditions:</u>	➤ Create delete object ➤ View data successfully from database ➤ Logout from system
<u>Operation Name:</u>	Reservation

Cross Reference:

Reserve package

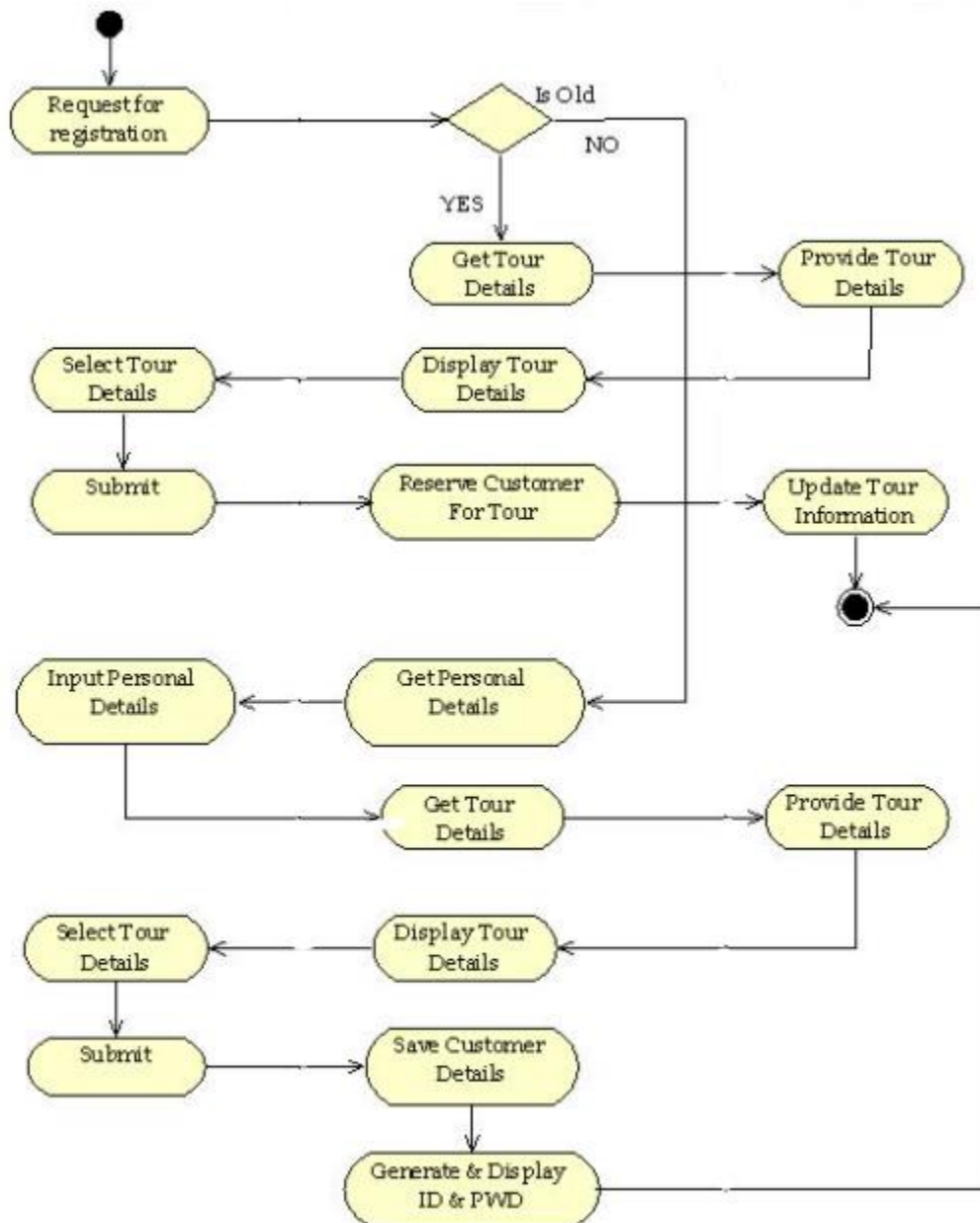
Pre Conditions:

- User should be log-in
- The package should be stored in database

Post Conditions:

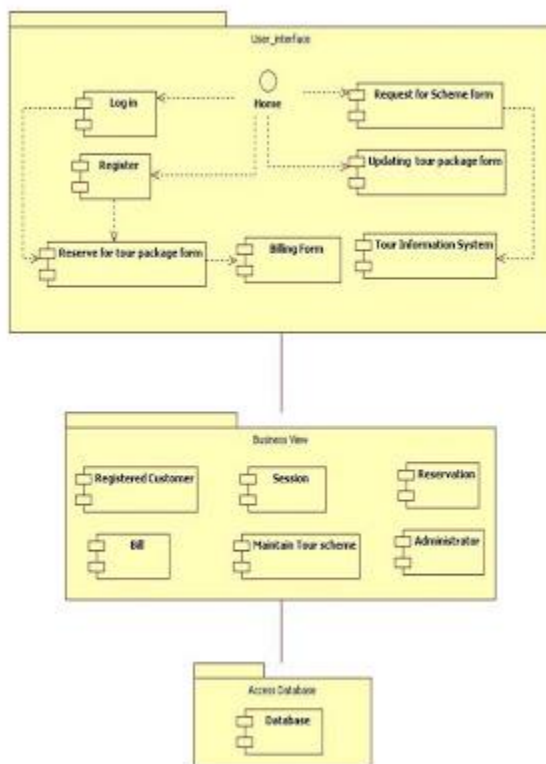
- Create reserve object
- Reserve package successfully
- Show message to reserve package successfully
- View data successfully from database
- Logout from system

4.7. Activity Diagram

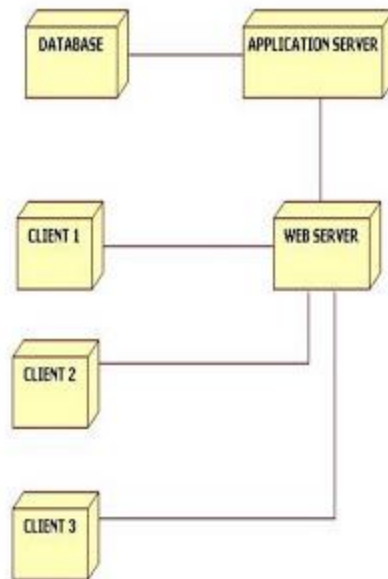


4.8. Component Diagram

A component diagram allows verification that a system's required functionality is acceptable. These diagrams are presenting the flow and verification system



4.9. Deployment Diagram

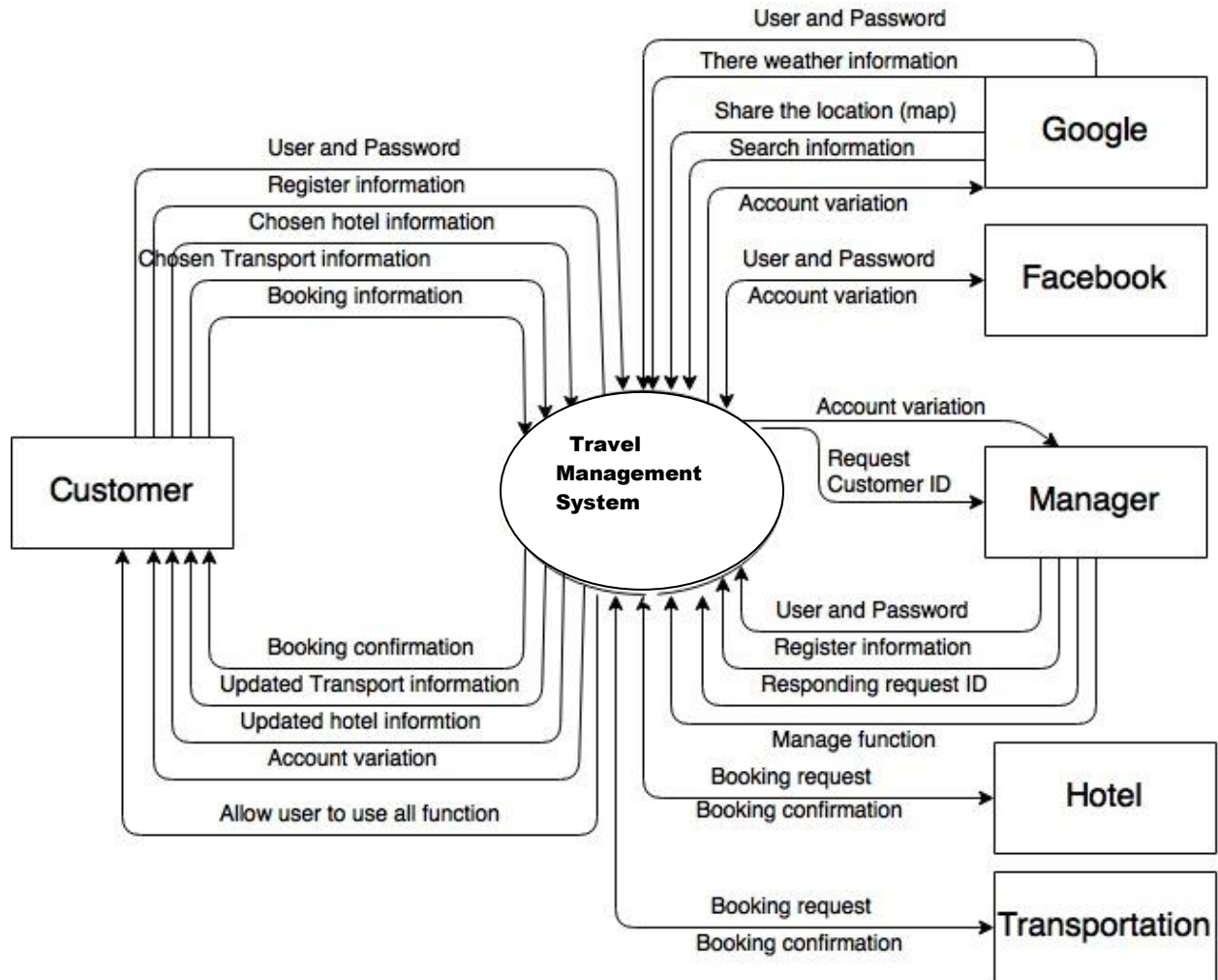


4.10. Data Flow diagram

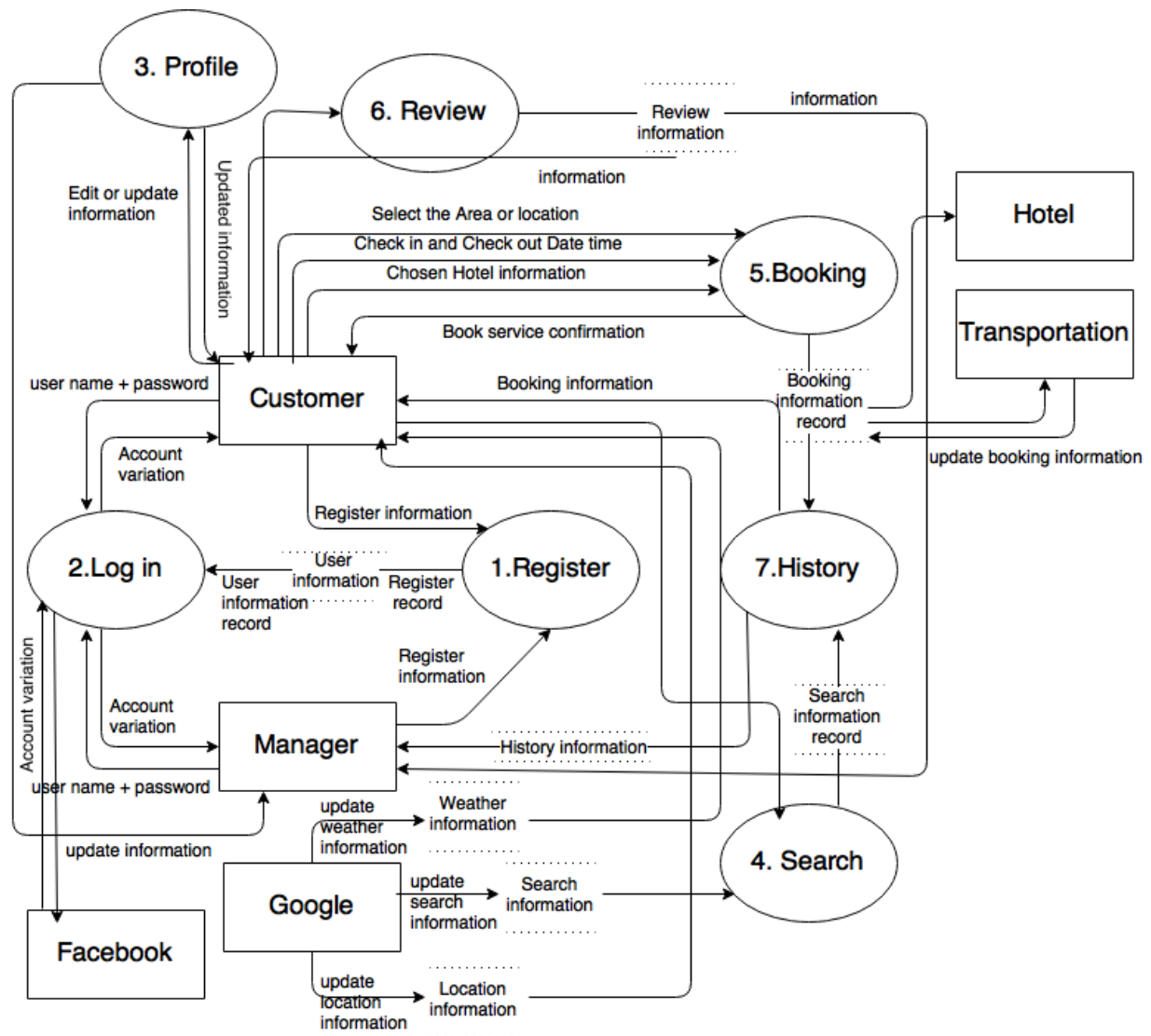
A data-flow-diagram (DFD) is a way of representing a flow of a data of a process or a system . The DFD also provides information about the outputs and inputs of each entity and the process itself.

DFD Level 0:

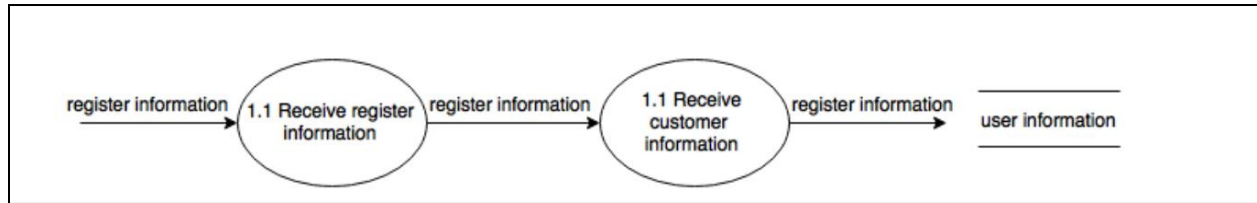
Context Diagram:



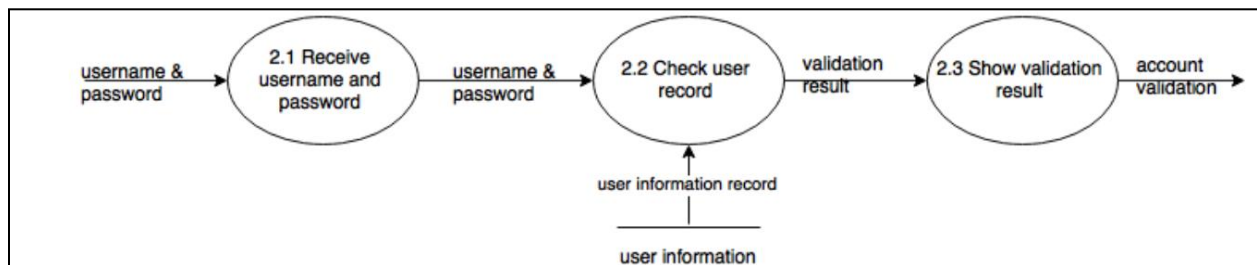
DFD Level 1:



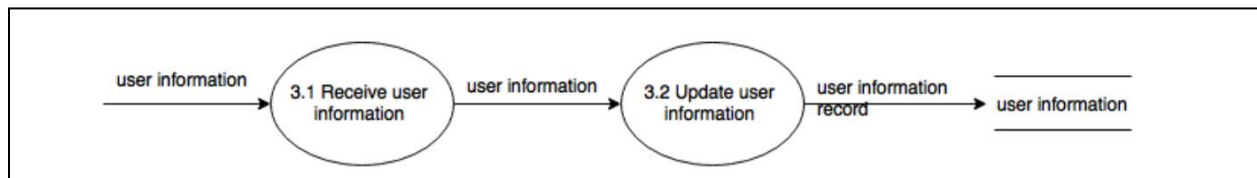
DFD Level 2:
Register:



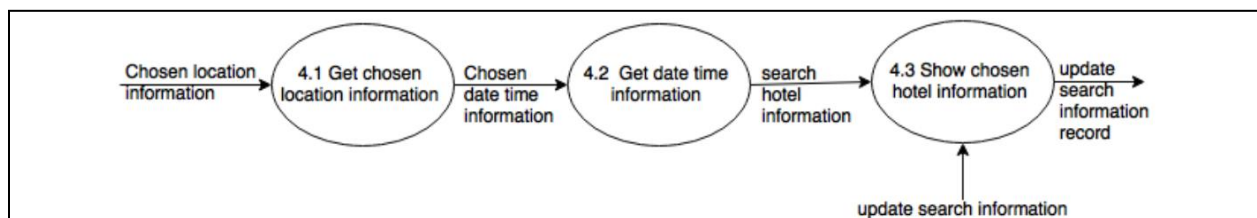
Login:



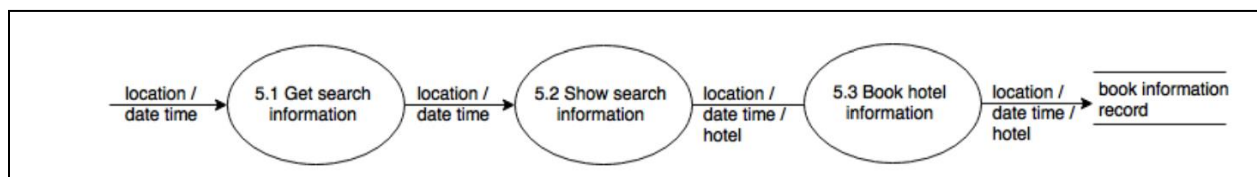
Profile:



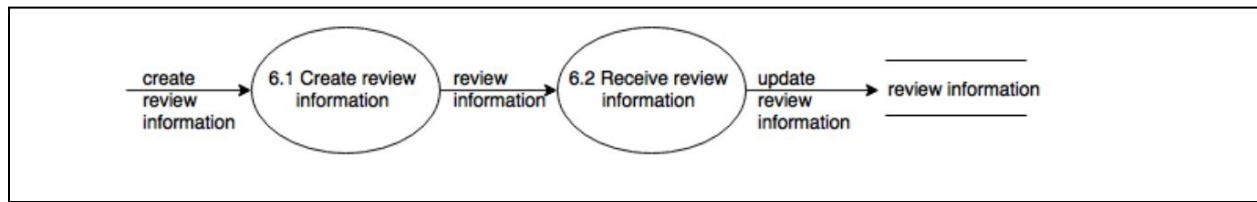
Search:



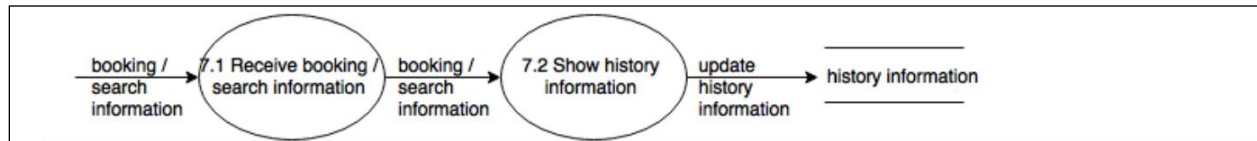
Booking:



Review:



History:



Chapter 5

Implementation

Chapter 5: Implementation

Important Flow Control/Pseudo codes

- Services that this application will provide are the following:
- There are two types of users
- 1. Users who want to provide information about families.
- They will be able to create a profile with the necessary information (contact, location, etc.)

Add/check reviews.

- 2. Users who want to donate.
- They will be able to access profiles based on the criteria they specify
- Add/check reviews.

Components, Libraries, Web Services and stubs

- Gson. Gson is a Java library used for serializing and deserializing Java objects from and into JSON. ...
- Retrofit. From their site: "Retrofit turns your REST API into a Java interface." ...
- Event Bus. ...
- Active Android. ...
- Universal Image Loader

Deployment Environment

In Deployment environment we work on android studio for build our android based application

5.1. Tools and Techniques

Tool Android Studio beta 4.2

Languages JAVA, XML

Data base Firebase

5.2. Best Practices / Coding Standards

- Testing on android studio
- Use java language
- Use xml language

Version Control

Now we just working on version 1 after the passage of time we changed the version. From the start of the project number of versions updated and finalized now version 1.5 mentioned here.

Chapter 6 Testing and Evaluation

Chapter 6: Testing and Evaluation

Use Case Testing is a functional black box testing technique that helps testers to identify test scenarios that exercise the whole system on each transaction basis from start to finish.

6.1. Use Case Testing

6.1.1.

Test Suite ID TS001

Test Case ID TC001

Test Case Summary To verify that by clicking Signup button username, password, email, phone# and address store in users detail in database.

Related Requirement RSoo1: User should able to Sign up.

Prerequisites No

Test Procedure 1.

Select fields in Signup form.

2. Enter user data in fields.

3. Click Signup button.

Test Data Valid username: ulfat, Ulfat

Invalid username: 12 ulfat./ ulfat, ulfat %^3

Valid password: 123Abc@5, Abc567\$%9

Invalid password: 1_ ulfat, _ ulfat123

Valid email: ali@gmail.com, 12ali@yahoo.com

Invalid email: ali.com, ulfat @yahoo

Valid phone# :03123456578

Invalid phone: @56rfgf7999, 2wstyyA

Expected Result 1.

If username, password, email and phone# are valid then store user data by clicking signup button.

2. If given inputs are invalid then display error message.

3. If fields are empty then show warning message.

Actual Result 1. If name is valid, the result is as expected.

2. If name is not valid then invalid message displayed.

3. If fields are empty then warning message displayed.

Status Pass

6.1.2:

Test Suite ID	TS001
Test Case ID	TC002
Test Case Summary	To verify Authentication or Login.
Related Requirement RS002:	User should able to Login.
Prerequisites	User should Signup first
Test Procedure	1.Select Username field and enter username. 2. Select Password field and enter password. 3. Click Login button.
Test Data Valid username:	ulfat, <u>U</u> lfat
Invalid username:	1iqra, ./ ulfat, ulfat %^3
Valid password:	123Aabc@, abMc567\$%
Invalid password:	1_ ulfat, _ ulfat345
Expected Result	1. If username and password are valid then clicking the Login button user successfully login. 2. If username and password are invalid then clicking the Login button invalid message display. 3. If fields are empty then display warning message
Actual Result	1. If fields are valid, the result is as expected. 2. If fields are not valid then invalid message displayed. 3. If fields are empty then warning message displayed.

6.1.3:

Test Suite ID TS001

Test Case ID TC003

Test Case Summary To verify that wedding halls, restaurants, volunteer, consumer and non-profit organization once signup if they are forgot password then they can update it by email.

Related Requirement RS003: user should able to update data.

Prerequisites user should login.

Test Procedure 1. Select fields.

2. Enter data in fields.

3. Click forgot password button.

Expected Result 1. If enter data is valid then update data by clicking update button

2. If given inputs are invalid then display error message.

3. If fields are empty then display warning message.

Actual Result 1. If fields are valid, the result is as expected.

2. If fields are not valid then invalid message displayed.

3. If fields are empty then warning message displayed.

Status Pass

6.1.4:

Test Suite ID TS002

Test Case ID TC004

Test Case Summary To verify that wedding halls, restaurants, volunteer, consumer and non-profit organization once signup if they are deleted in database by performing crud operation by clicking Delete button.

Related Requirement RS004: Admin can delete data.

Prerequisites Admin should login.

Test Procedure Click delete button.

Expected Result If data is deleted by click button then message will appear

Actual Result If action is valid, the result is as expected.

Status Pass

Remarks This test case is simple and easy.

Created By Rabia Saleem

Date of Creation 04/01/19

6.1.5:

Test Suite ID TS002

Test Case ID TC005

Test Case Summary To verify that data is searched by clicking search button.

Related Requirement RS005: User should be able to search data.

Prerequisites User should login.

Test Procedure 1. Select search field.

2. Enter name in fields.

3. Click search button.

Expected Result 1. If name is valid then show detail.

2. If name is invalid then display error message.

3. If field is empty then display warning message.

Actual Result 1. If name is valid, the result is as expected.

2. If name is not valid then invalid message displayed.

3. If fields are empty then warning message displayed.

Status Pass

Remarks This test case is simple and easy.

6.1.6:

Test Suite ID TS002

Test Case ID TC006

Test Case Summary To verify that record is display.

Related Requirement RS006: User should be able to view data.

Prerequisites User should login.

Test Procedure 1. Enter name in fields.

2. Click View button.

Expected Result 1. If name is valid then show detail.

2. If name is invalid then display error message.

3. If field is empty then display warning message.

Actual Result 1. If name is valid, the result is as expected.

2. If name is not valid then invalid message displayed.

3. If fields are empty then warning message displayed.

Status Pass

Remarks This test case is simple and easy.

6.2. Data flow testing

The relationship between one entity and another while performing a specific task in during data flow. Such as between the sign up and registration process etc.

6.3. Unit testing

In unit testing we have testified our different panel codes individually by performing different tests and by executing them individually, separately on different computers and they were successfully executed and they performed well

6.4. Performance testing

In performance testing a particular certain situation is given to the website let's just say a 100 users try to register at the same time so how the system recovers back gracefully with complete results. So according to our extracted results, around 100+ people were able to register in our website.

6.5. Stress Testing

Let's say if 100 customers order at the same restaurants at the same time along with the same food level

which increases the stress on the website at a maximum load how will the website will perform under these circumstances.

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.2. Achievements and Improvements

The biggest achievements here are that we were able to enhance our skills to the professional extend that we learned in four years of studying and apply it to this project. We learned software architecture design techniques, UML modeling, project management, testing and much more, and were able to apply it all in this project.

The next big achievement is the things we learnt during this project. New languages, frameworks, libraries, different software's for diagrams Database. All that will be useful for us in our futures.

We learn Creative thinking.

7.3. Critical Review

The critical element of our system is: Is our system is fast moving, give user friendly interface, not very costly, fulfill the specific requirements of the users at a runtime, has all the features which any organizations can require. To manage all these aspects it took lot of time and hard work.

7.4. Lessons Learnt

We absorb very much from this project. This project sharpens our skills in xml and android studio many other tools and many management concepts as well as how to deal with a problem and how to stick for finding the solution of any problem until you find. As well as technical skills this project also enhances our personal development skills such as team working, dedication.

7.5. Future Enhancements/Recommendations

As it has been already said, there is always room for further improvement. And since we plan to launch this website as our own startup, enhancements will keep coming.

The system has been built on react native, but at some point we work on its efficiency, accessibility, flexibility, we are definitely going to scale it up which we believe ours is eventually going to become. We make it more user friendly interface.

Appendices

Appendix A: User Manual

In this appendix section we describe the different phases of user interface and also describe how user can use our project



11:23

1.00 KB/S 95



ForgotPassword

Don't worry we just need your registered email address
and it's done!

Register_Email

11:23

2.00 KB/S 95



Name

Email Address

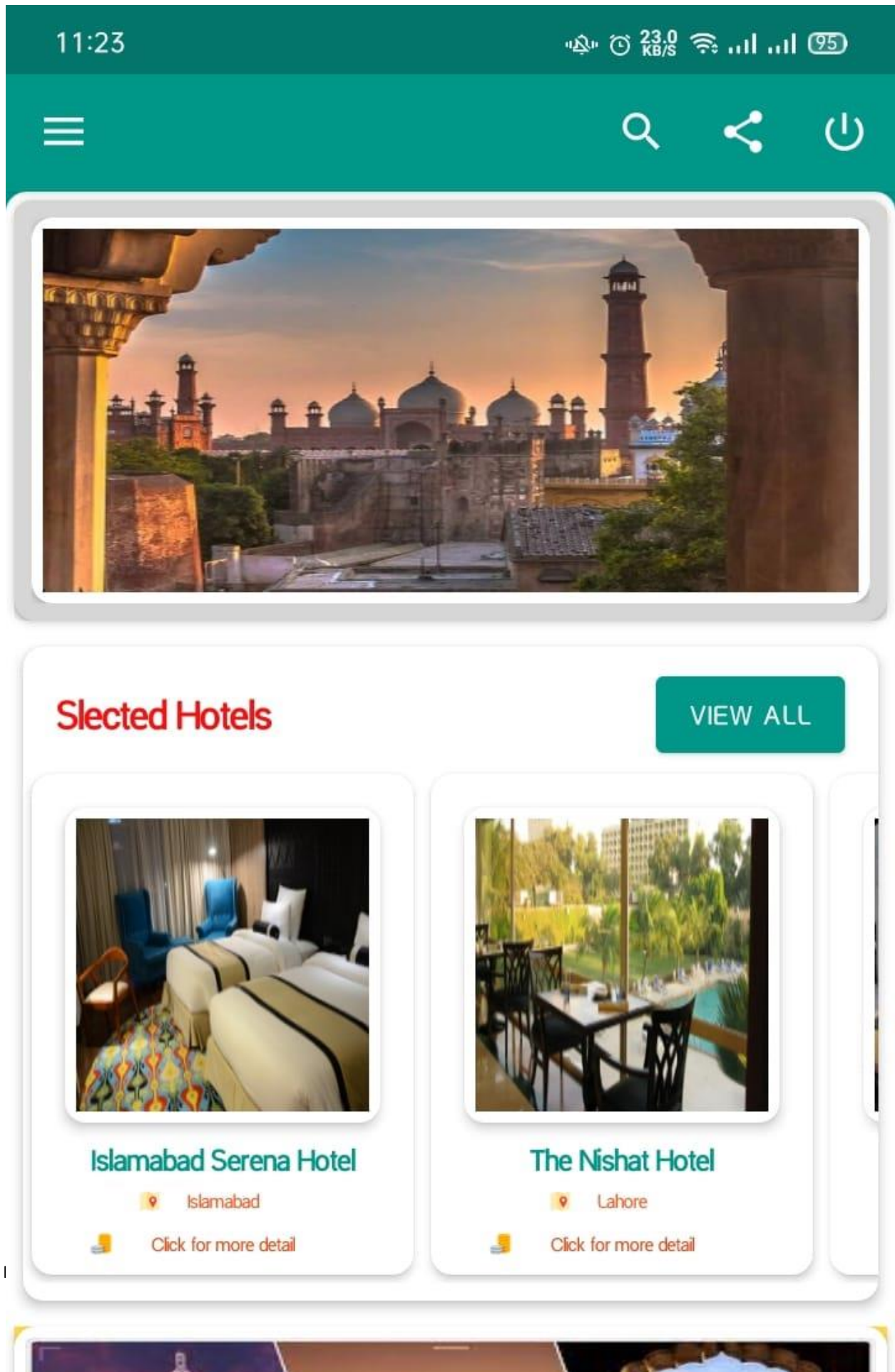
Password

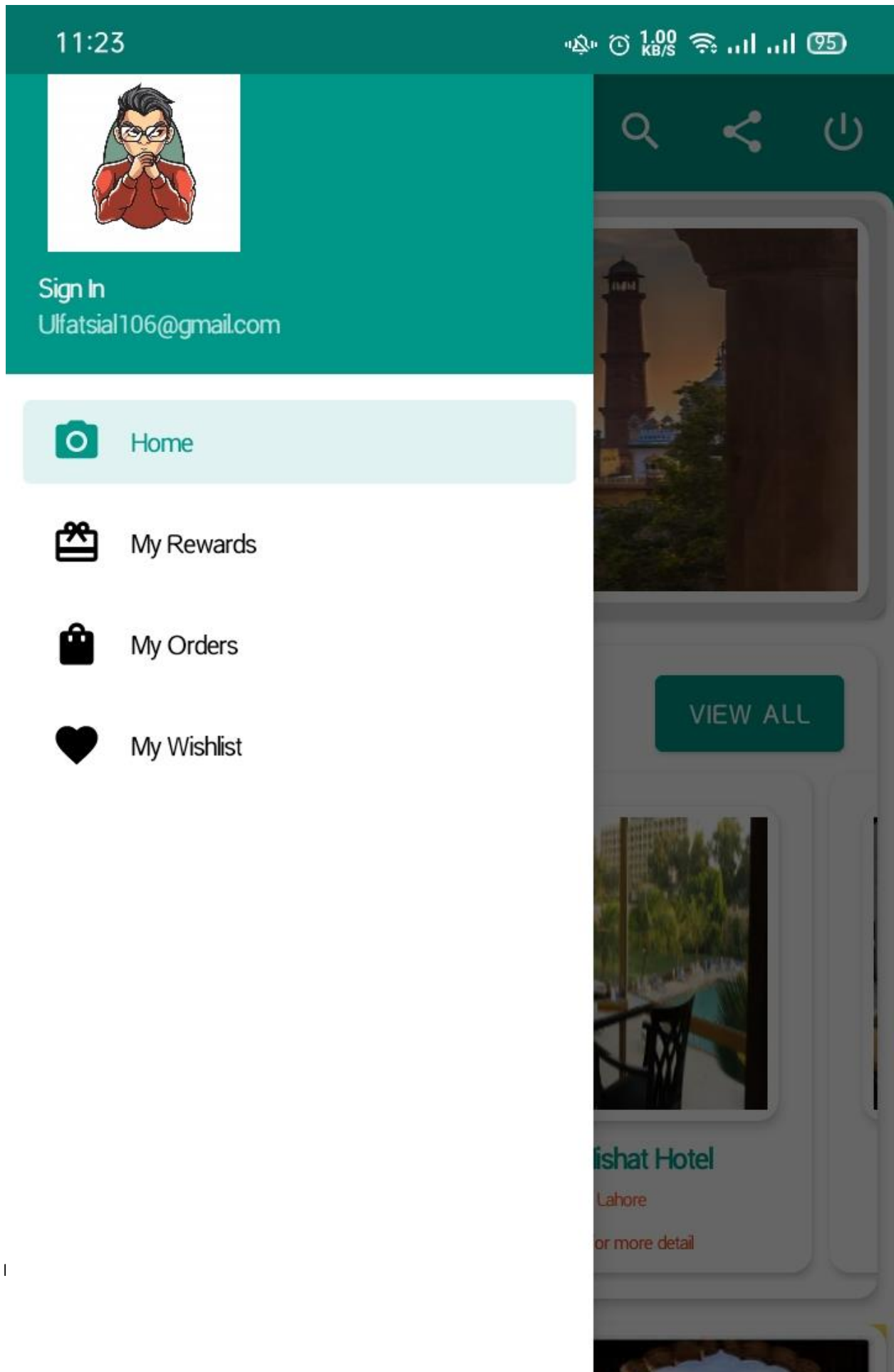
Confirm Password

REGISTER

OR

Login





11:23

0.70 KB/S

95



Dream Hotel

free1Coupen

Qty:1

Rs.799999/-

Rs.690000/-

4Offers Applied

Coupen Applied

Check Price after coupen redemption

REDEEM

Remove item



Dream Hotel

free2Coupens

Qty:1

Rs.799999/-

Rs.690000/-

2Offers Applied

Coupen Applied

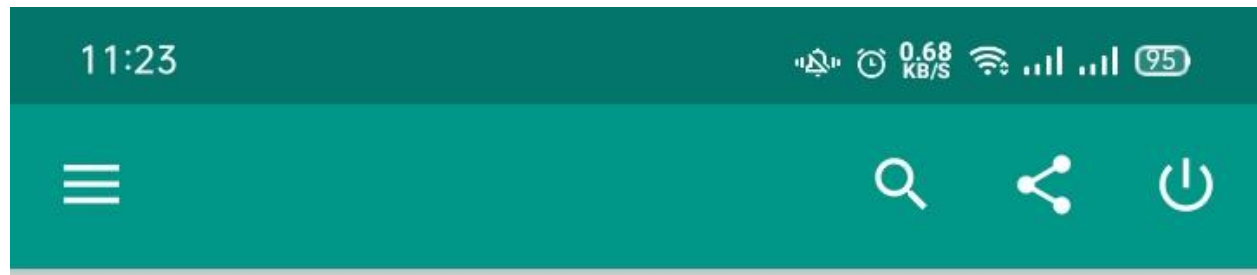
Check Price after coupen redemption

REDEEM

Remove item



Dream Hotel



Dream

● Your Booking is 26.5.2021

Your Ratings



Emporium

● Your Booking is 26.5.2021

Your Ratings

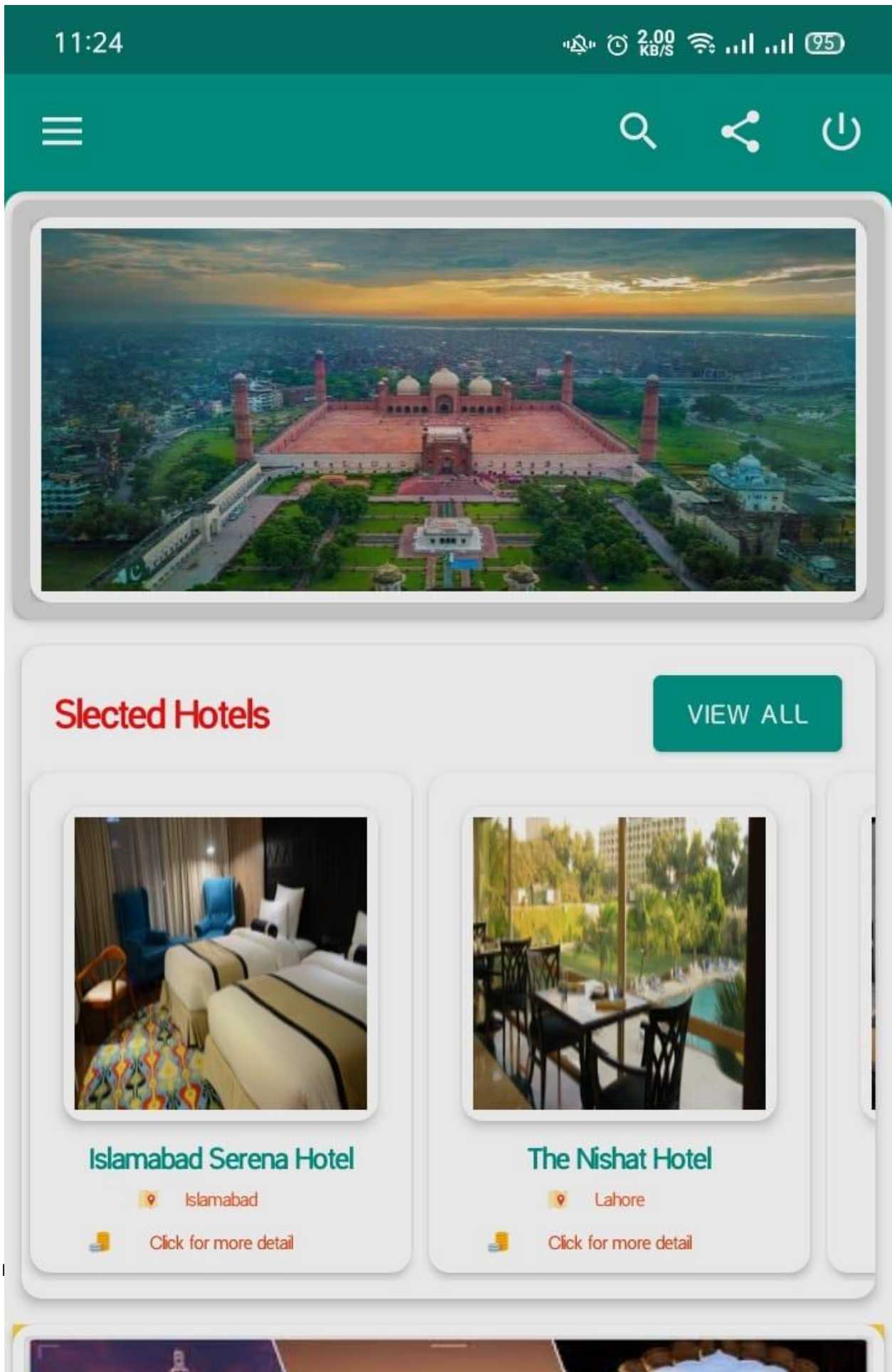


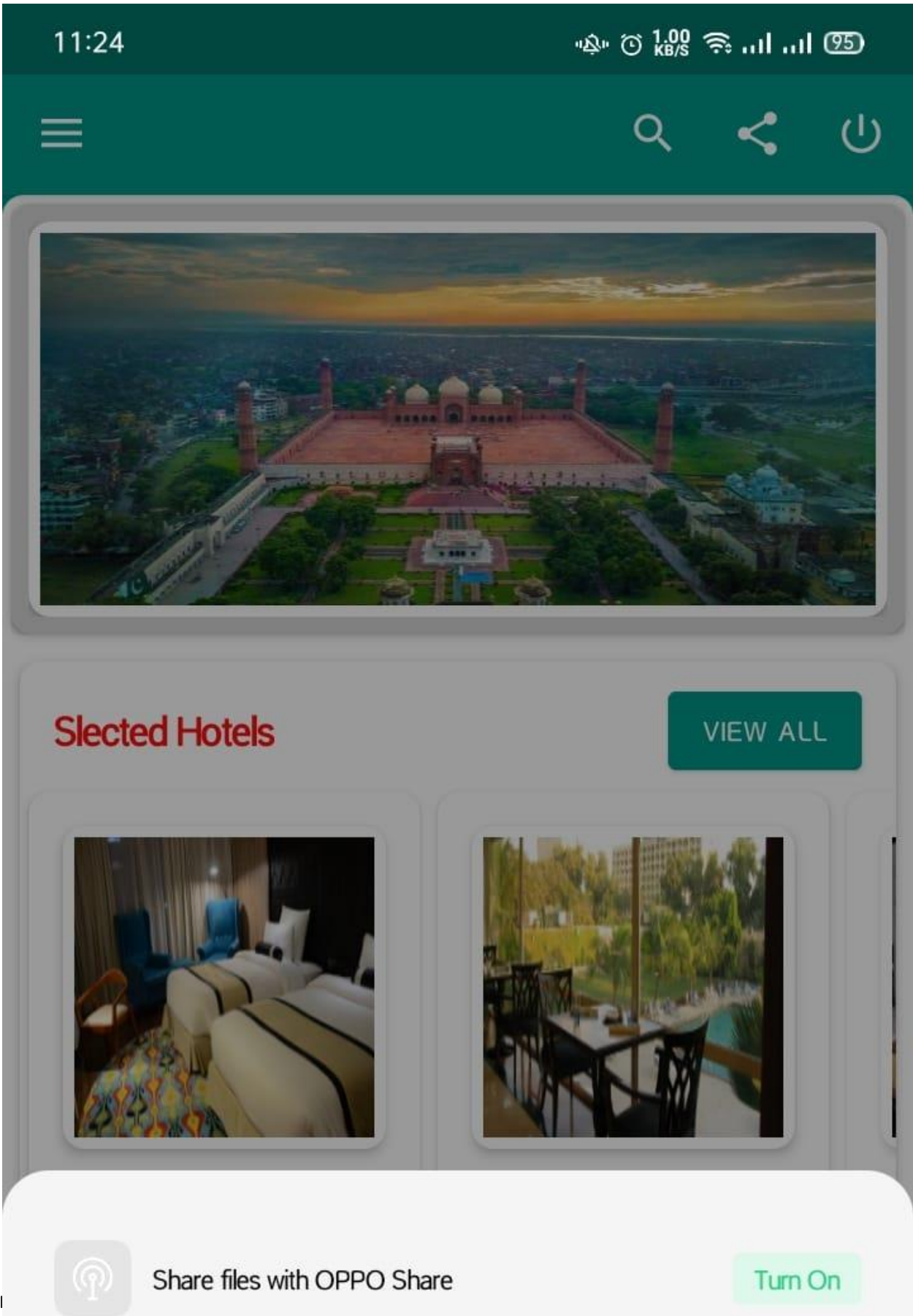
Lahore Monal

● Cancelled

Your Ratings







11:24





My Hotel

 free 2 coupens

23  34(ratings)

Click for more detail 123345

Cash On Time





Malls

4.5 ★ (27)



Rs.4999/- Rs.5999/-

Available

Check Price after coupon redemption

REDEEM

 Discount

Enjoy your discount!

RATINGS

11:22

0.14 KB/S 95



Email Address

Password

[Forgot Password](#)

LOGIN

OR

Register

Reference and Bibliography

Reference and Bibliography

[1]

https://play.google.com/store/apps/details?id=com.intellisense.pakistanguide&hl=en_US&gl=US

[2]

<https://travel.state.gov/content/travel/en/international-travel/International-Travel-Country-Information-Pages/Pakistan.html>

[3]

<https://travel.gc.ca/destinations/pakistan>

[4]

<https://www.anatoliatravelservices.com/>

[5]

<https://www.gov.uk/foreign-travel-advice/pakistan/entry-requirements>

[6]

<https://play.google.com/store/apps/details?id=com.hilton.android.hhonors>

[7]

<https://brandcycle.shop/cbn2v>