Tourist Guide

by Mehmood Marwa

Submission date: 27-Dec-2020 07:09PM (UTC+0500)
Submission ID: 1481475183
File name: T.G_work_-_Copy.docx (1.61M)
Word count: 4279
Character count: 22824

Chapter 1

Introduction

1. Introduction

Tourism in pakistan has grown in the last decade , thanks to imporove to security situation. According to survey tourism industry contributed 2.8% of Pakistan's gross domestic product (GDP). From snow capped peaks and frozen lakes to serene valleys and beautiful shores, interspersed with the ruins of incient civilization and mughal monuments as got everything to be a best tourism destination in the world. Pakistan was ranked among best holidays destination for 2020. Pakistan was also declared the third highest potential adventure destination in the world for 2020.

This increase in tourism for both skilled and unskilled workers of local remote communities, who can now provide lodging, tourist guide, portering , travel agencies, transportation, entertainment, local product crafting etc.

As everyone want to spend some time in a tourist point for enjoying a quality time from his/her busy routine. Everyone desire to spend time with his/her family in a nature point.This application is a help users to select a best location for his/her and also for family. Because when people visit a location so they are not knowing much information about tourist point. Is all facilities on that point or not. There are many things that are not provided on many tourist and tourist not knowing about that. Such as Hoteling service, traveling services etc. Many other application provide these type of service but not all in one in a single app ,All of them provided some basic service and less then our app.

1.1 Objectives

1.1.1 Cost effective and timesaving

It saves the time of users for finding a tourist point and also give info about services on that point. Its give idea and also choice to user to select a point and compare with other tourist point in sense of services. This application also provide transportation service for traveling towards that point. Also in this provide choice of transportation such as train, vehicle , airplane . These all facilities will be cost effective and time saving for the users of the application.

1.1.2 Responsive

The application uses Firebase as its backend that is much faster than others. It accommodates changes in data on real time. This ability of our backend leads us towards faster response from the system. It is crucial for the system to be very responsive because sellers, buyers and transporters are connected to each other dynamically.

1.2 Problem statement

There are many problems with people related visit to a tourist point. When a tourist want to visit a tourist point they are facing many problems such as transportation service and other services like hoteling etc because they have no any information about that point. They face problem in getting hotel info, camping if available or not like these information also which type of hotels there.

1.3 Proposed solution

This is the biggest issue which is going to be solved with the android application. The people who want to visit any tourist they will get info from our app and compare with some tourist.

After this they select one of them from those. Get information about transportation service which is best and reliable.

1.4 Scope of the system

Users give their information to the system by following available methods provided in application. When ever user makes a search all the results are based on this information. Further more, required technologies for this software are internet connection for fetching data. System data resides and maintained in a database, which is located on a cloud-server.

1.5 Hardware Requirements

The “Tour Guide” is android based mobile application which helps users to find tourist point and services on that point. Compare tourist points with eachother on basis of services. This application is available at mobile application stores or similar services, so that user can download it without any cost

User must have an android device with data connection.

1.6 Software Requirements

Android version of the device must be lollipop or above this.

1.7 Tools

1.7.1 Android Studio

Android studio is the official integrated development environment (IDE) for developing applications for Google's Android Operating System. It is the much powerful tool for developing Androidapplicationthananyotherbecauseofitsamazingbuiltinfeaturesthathelpthedeveloper in developing Android applications efficiently. In this project Java is used for implementing logic and XML serves in designing user interface and other visual components.

1.7.2 Microsoft Visio

By using MS Visio one can create any type of diagram either simple or complex. A wide variety of ready-made shapes objects and stencils to be work wit. Anyone can make his own shape using circles, lines, arrows and rectangle available in Visio. Visio is based on the idea of making diagramming as much easily as possible, which is the main reason of using Visio in project.

1.7.3 Firebase

The Firebase real time database is a cloud-hosted database. Data is stored as JSON and synchronized in real time to every connected clients. This Database lets the developer to develop responsive, rich, collaborative applications and allow secure access from client-side code to the database directly.

Chapter 2

Literature Review

2.1 Literature Review

The application **Tout Guide Android** will automate the whole process of selecting a tourist point and get information about services on that point also get transportation services. It aims to facilitate the tourists. The people who want to visit any tourist point. For tourist industry every country take many steps and one of them is make android apps to facilitate tourist for finding services. They will provide many service on tourists point in free of cost. This steps is done by local government that's why in those country tourist industry doing good work and generate a good GDP. Unfortunately in our country has no sops for tourists and also not provide services on tourists point by local government. That's why we have not generate good GDP. This application is compatible with only Android OS. The admin can allow a user to become the part of the application. The Admin doing maintenance of application and adding features.

2.2 Existing systems

The first step of project consisted of assessing the different available application to come up with requirements along with improvements. The main problem with other applications is their service is not available in our geographical area and also bugs in that.

In existing App no proper login is performed. This App "Tour Guide app" provide proper registration and login service for its users and use a authentic server for this service. Further more all the users register them using same application. Provide Proper info about tourist points also transportation services information. Account information of that user. And many more services. Applications performs specific functionalities.

2.3 Proposed System

To overcome the problems provided by the existing systems, we have created our own android application system which is user friendly. Our proposed system that is "Tour Guide App" has many facilities for tourist those want to visit any place. In our application users can register using the same application. Our application facilitates the users to fill their information in regarding interfaces that is shown in the lists to others users. We Provide easy interface so user easy to understand all functionalities of app and perform operation easily.

User can find transportation service easily and select suitable transportation service according to their need such as if they want to book a car so they will do or if available any bus service then they will book that also if available trai service for that point so they will book train ticket and

travel on that so its on tourist in which they fee comfortable and enjoying his trip.

Chapter 3

Requirement Specification

3.1 Requirements

A Requirement is the statement of a need or proof that one entity demand on another explicitly and implicitly. It is the essential part and must be met to all relation to full fill the stakeholder requirements.

3.2 Functional Requirements

Functional requirements are defined as what the system should exactly to do and it should perform some specific condition. Functional requirements clear statement of the system abilities by some inputs and condition. Functional requirements are specified by the customer or target on the user of the system before implementation phase. Function requirements should be written in that language which is not ambiguous and is easy to understand and give clear instruction and making no confusion in any situation.

3.2.1 Signup

Table 3.1: Sign Up

Name	FR-1: Signup
Description	To access this application every user must register himself.
Rationale	If the user wants to use this application registered himself. Registration is a fundamental part of the system without registration no one can use this System
Fit Criterion:	For Signup, following information is mandatory. • Before Signup, all the fields appear to be empty. • For Signup user will enter his details like correct Email and password. After validation, the system will be logged in. • For Signup if user will enter his incorrect details like incorrect Email and password then the system will not perform logged in.
Dependencies	If user does not Signup then other functionality cannot perform.

3.2.2 Login

Table 3.2: Login

Name	**FR-2: Login**
Description	To use this application every user must login. User should login by entering email and password.
Rationale	Login process is the authentication technique for the pre-existing users to get access to their profiles. Profile is the unique identity for the user it could be admin or the other user of the system. This process verifies the email id and the password for the user and act as the gateway for the user to connect with the profile.
Fit Criteria	In future if the user wants to see his/her details, he will use this user name and password. **i. Email** The data type of email is string. The user can enter alphabets and numbers. Users' Email should contain .com and "@" character in their email. If user Email do not contain .com and "@"character in their email then system show incorrect Email. **ii. Password** The data type of password is string. The user can enter alphabets and numbers. User's password should contain at least6 digit/characters.Iflengthofpasswordislessthan6thensystem show incorrect password.
Dependencies	If user does not perform login then user cannot access the system.

3.2.3 Users Account

Table 3.3: Main Home Page

Name	**FR-3:Main Home Page**
Description	User See some tourist point info and also transportation information on the top.
Rationale	On main page we will show a slider in which some tourist point pictures slide for a specific time. And also show transportation information like vehicle , airplane(if available), Train(if available)
Fit Criteria	So the user get these info and do his/ her required operation on that data.
Dependencies	If not available service or any bug error in server side then not display that data.

3.2.4 View Tourist Point

Table 3.4: View Tourist Point and deals

Name	**FR-5: View Tourist point and deals**
Description	Admin can add tourist point some specific on server side and also some deals which offers services provider. Admin add these data and show to users.
Rationale	Admin can list tourist points and deals in server and show to user on app side. Then user will get info and select one of them for visit.
Fit Criteria	If Any tourist point which have no services then admin cannot list of server and not showing on mobile app.
Dependencies	This functionality depend on Admin.

3.2.5 Update Accounts

Table 3.5: Update Accounts

Name	**FR-6: Update Accounts**
Description	A user of system would update their personal information for example Name or Phone.
Rationale	Updating profile information is necessary because user can enter wrong details like mistake in user name and phone then user can easily edit.

Fit Criteria	For Update profile information, User must put their personal information Which is little bit wrong or need to update by the user and there is an update option to perform update action.
Dependencies	This functionality depend on all user accounts.

3.2.6 Delete Account

Table 3.6: Delete Account

Name	**FR-7: Delete Account**
Description	User of the application can delete their account.
Rationale	If a user have want to delete his/her account so he can delete account from settings. He can remove his entry.
Fit Criteria	• User Can delete his/her account from mobile side. • Also admin can delete account from server side.
Dependencies	Depend on user needs.

3.3 Non- Functional Requirements

Non-functional requirements define the system as a whole. Non-functional requirements are specifying the criteria that can used to judge the operations of a system rather than any behavior. Non-functional requirements are totally opposite of functional requirement that are concerned with specific behavior.

3.3.1 Availability

Table 3.7: Availability

Name	**NF-1 Availability**
Description	Make sure that this app should be available at any time. If internet is available users should use this application in 24/7 hours a day.
Rationale	If the system is not online 24/7 then user would not use this application due to availability/server/internet problem.
Requirements	The system should be online because having database.

3.3.2 Performance

Table 3.8: Performance

Name	**NF-2 Performance**
Description	Retrieving or inserting of data must be very fast.
Rationale	If the retrieving or inserting of data is not fast enough, users will avoid using the software. Moreover, more performance required in case of selected the items categories that is performance wise too much efficient and reliable as well.
Requirements	If internet is available, then retrieving information would be measure in 3sec.

3.3.3 User Friendly

Table 3.9: User Friendly

Name	**NF-3 User Friendly**
Description	Make sure that the system is user friendly that everyone can use it.
Rationale	• The user easily uses it. • The user properly under stands it.
Requirements	The system should support English language and have meaning full words and concise words.

3.3.4 Security

Table 3.10: Security

Name	**NF-4 Security**
Description	• User must register him/herself to use this application due to security issues. • The system must be secure only valid user can use this system.
Rationale	In order to secure the system i.e. only valid user can view and change data, this constraint is included. Non-register user cannot access the data
Requirements	Before a user use the system, he must have to mention an Email and password.

3.3.5 Accuracy and Consistency

Table 3.11: Accuracy Consistency

Name	**NF-5 Accuracy and Consistency**
Description	Make sure that system should display accurate and consistent result
Rationale	• If user search for places then system must respond within 1sec and must provide the accurate and updated list. • If two users requested same items at same time the result should be consistence
Requirements	• User's location should be accurate.

3.3.6 Easy to modify

Table 3.12: Easy to Modify

Name	**NF-6 Easy to modify**
Description	Make sure that it is easy to modification in record inserted by sellers, buyers or transporters.
Rationale	If users want to update any change then it is easy to modify.
Requirements	• Seller can update data when required • Buyer can update data when required • Transporter can update data when required

Chapter 4

System Design

4. System Design

System design is a software engineering process used for analysing the system. Its Application is toanalysethesystemsfortroubleshootingordevelopmentpurposes.Itisconcernedtoinformation technology, where computer-based systems require defined analysis according to their makeup and design. In system design modules, interfaces and data for a system is defined to satisfy the requirements. This chapter will describe the analysis model of system. It explains the requirements of the system, problem areas, use-cases and actor, dataflow diagrams, sequence diagrams and activity diagrams of the system. The good approach is to gather and define the requirements without ambiguity ,so that the risks are identified and the user is satisfied when the end application is finally workable or deliverable.

4.1 Use Case Diagram

Use cases diagrams are usually show the behavior of the system. It is an approach used in system analysis to identify, clarify and organize system requirements. In use case diagrams an actor can be a human or external system. Use case shows that how different actors interact with systemand accomplish a goal. Use case also defines boundaries of the system. It gives the detail about the actions that some entities should or can perform by some actor. Each use case shows an action performed by an actor and must be associated with any actor or the system that performsit.

- **Actors**

There are four actors in the use case diagrams of the system.

- Tourist User

4.1.1 Tourist Use Case Diagram

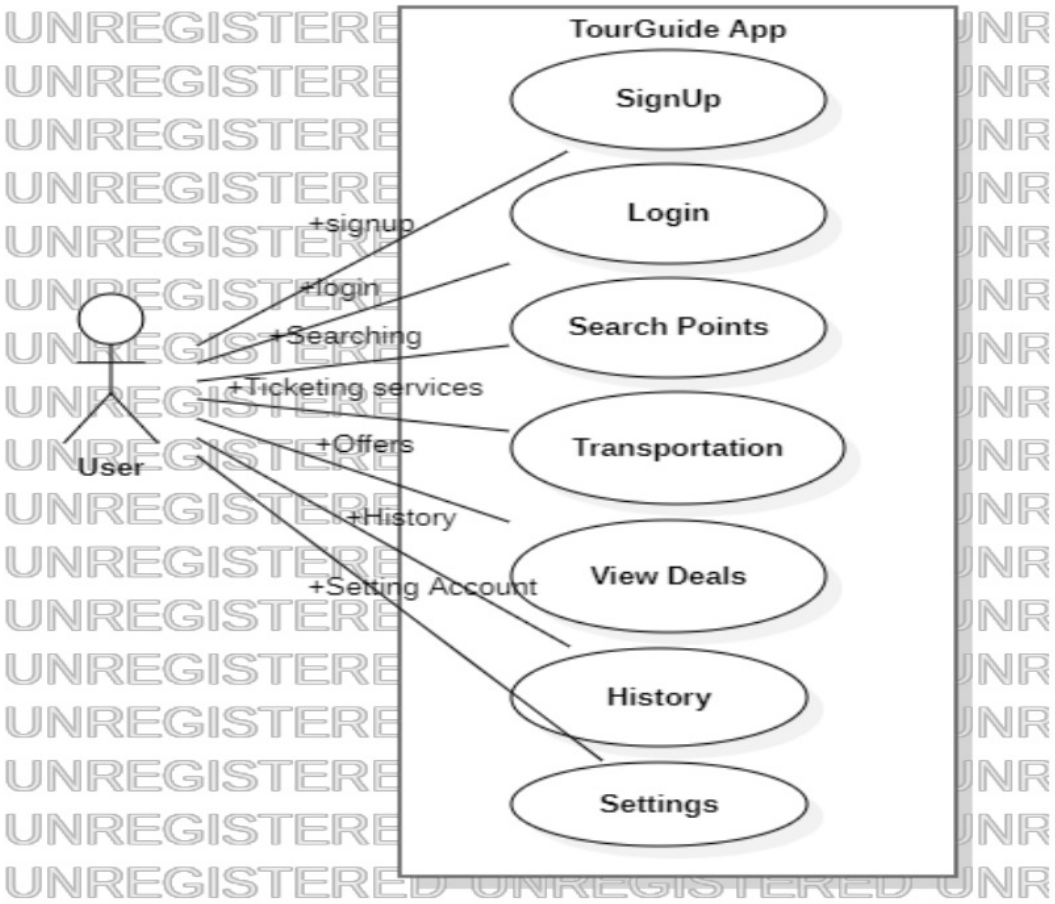

Figure 4.1: Use case diagram for Tourist

Table 4.1: Tourist Use Case Description Table

Use Case	Description
Sign Up	Tourist has to first Sign Up with the system. Without Sign Up he has no access to the system. Because this application give access to only authorized user.
Login	The Tourist has to login to use the application.
Searching	Tourist user can search places also services.
Transportation	Tourist user search transportation service according to need.
Deals	Tourist user can check deals if any available.
History	Tourist user can check history of places.
Setting	Tourist user get setting like account setting and some other services.

4.2 Activity Diagram

4.2.1 Tourist Activity Diagram

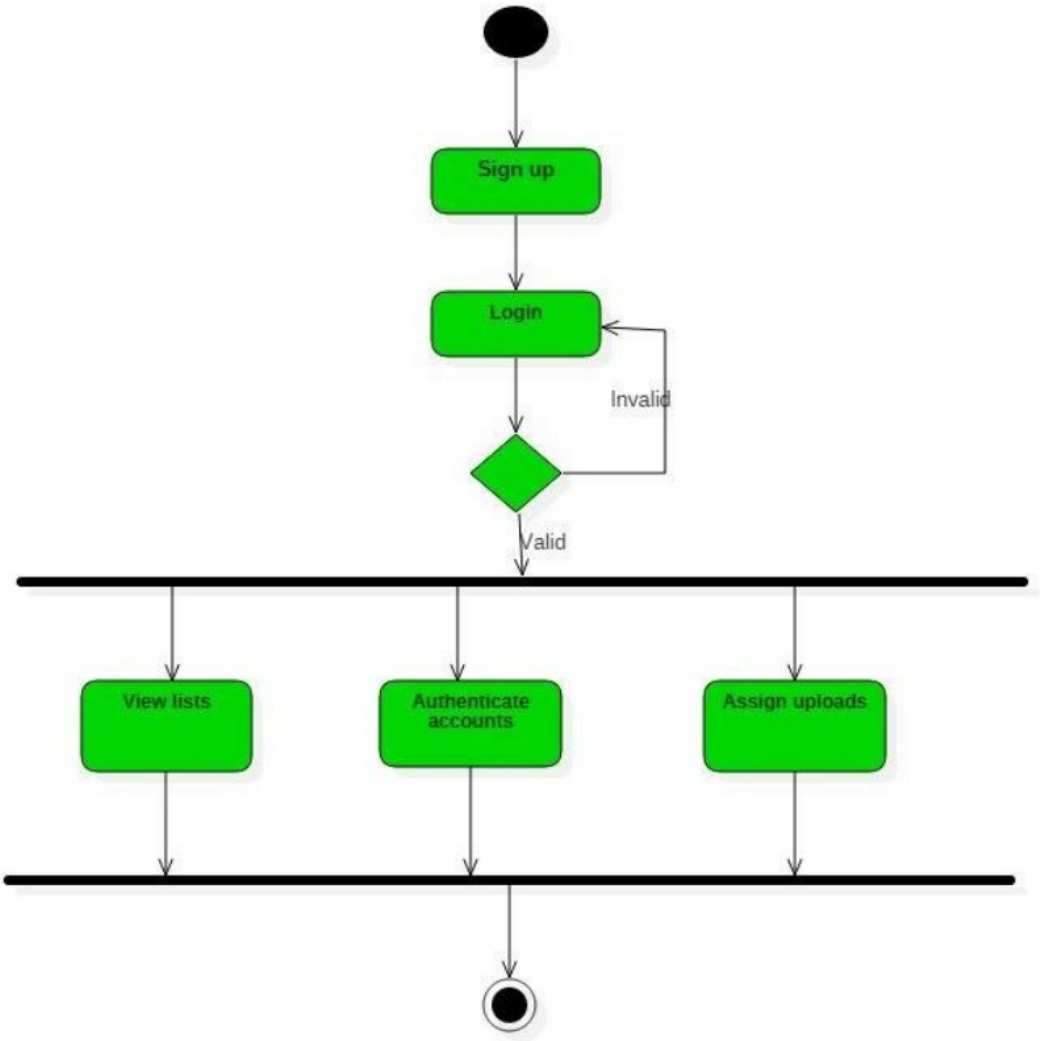

Figure 4.5: Activity Diagram for Tourist

Figure 4.5 shows the activity diagram for the tourist. Tourist will login to the system. After user can search points ticketing service etc and some other view deals , history change account setting etc.

4.3 Class Diagram for Tourist Guide

Figure 4.9: Class Diagram

4.4.1 Tourist Sequence Diagram

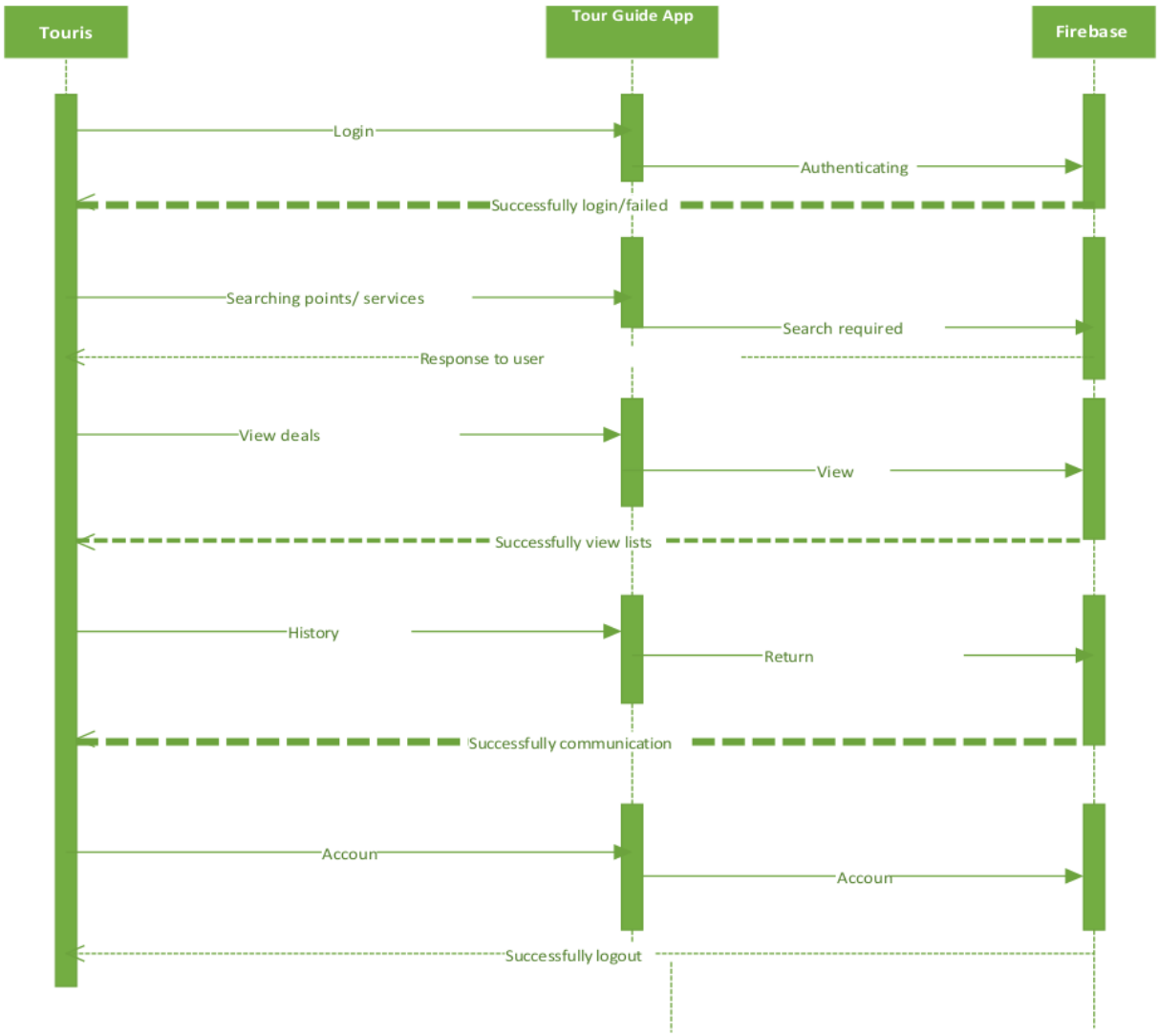

Figure 4.11: Tourist Sequence Diagram

Figure4.11shows that the user will login into the system by providing email and password after authentication, the user will perform search according to need points and service like transportation etc , view deals , views history, and also account setting and some other services in setting tab.

4.4 Data Flow Diagram

4.5.1

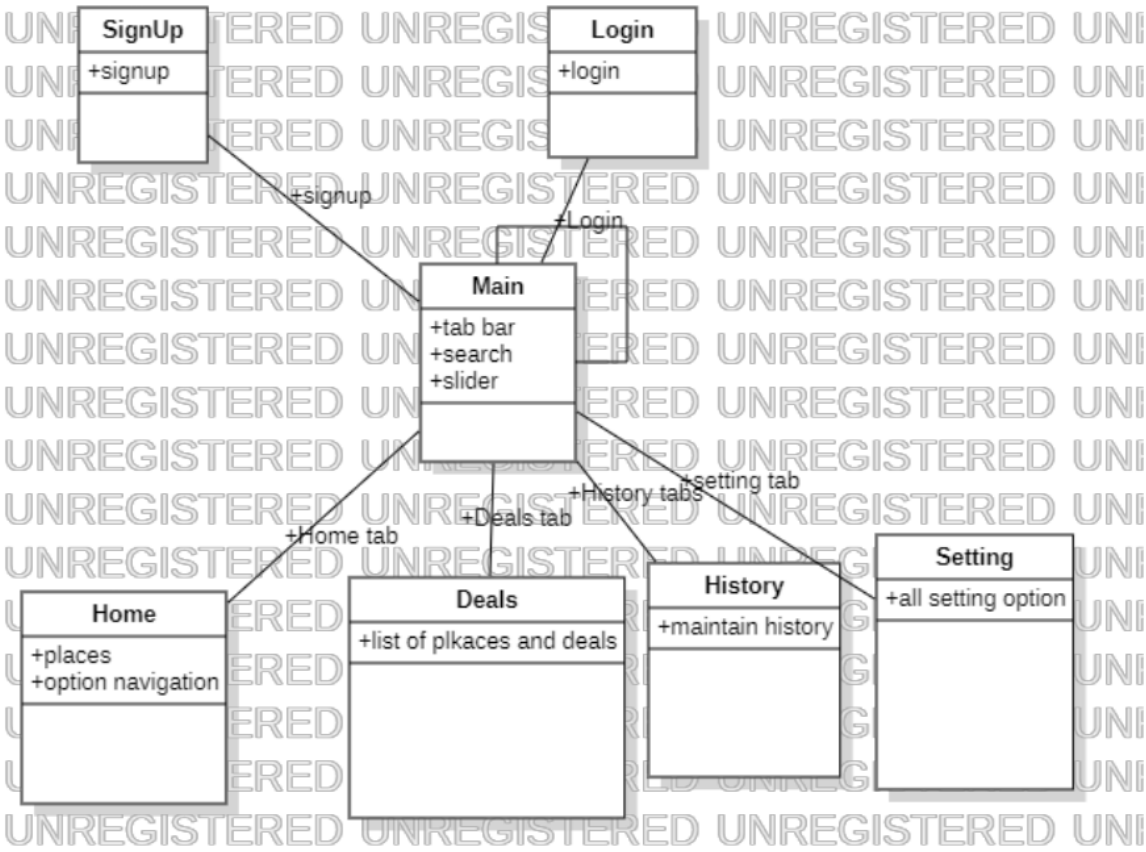

Figure 4.15: DFD Level 0

Figure 4.15 shows that basic functionality of the users in the system user can sign up then after doing this users.

Chapter 5

Implementation

5.1 Implementation

In the development of software lifecycle implementation is important phase where thedevelopers givephysicalexistencetothoughtandideas.Theresultofsuccessfulimplementationisourdesired application. During this phase developers makes source code of conceptualmodel.

5.2 Tools

• Android Studio 4.0.1

• Firebase database.

5.3 Software Requirements

• OS: Android Kit Kat(4.4)

• Language: Java ,XML

5.4 Hardware requirements

• Intel (R) Core (Tm)I5

Android cell phone (Minimum Kit Kat 4.4 version OS).

5.5 User Interface

5.5.1 Splash Screen

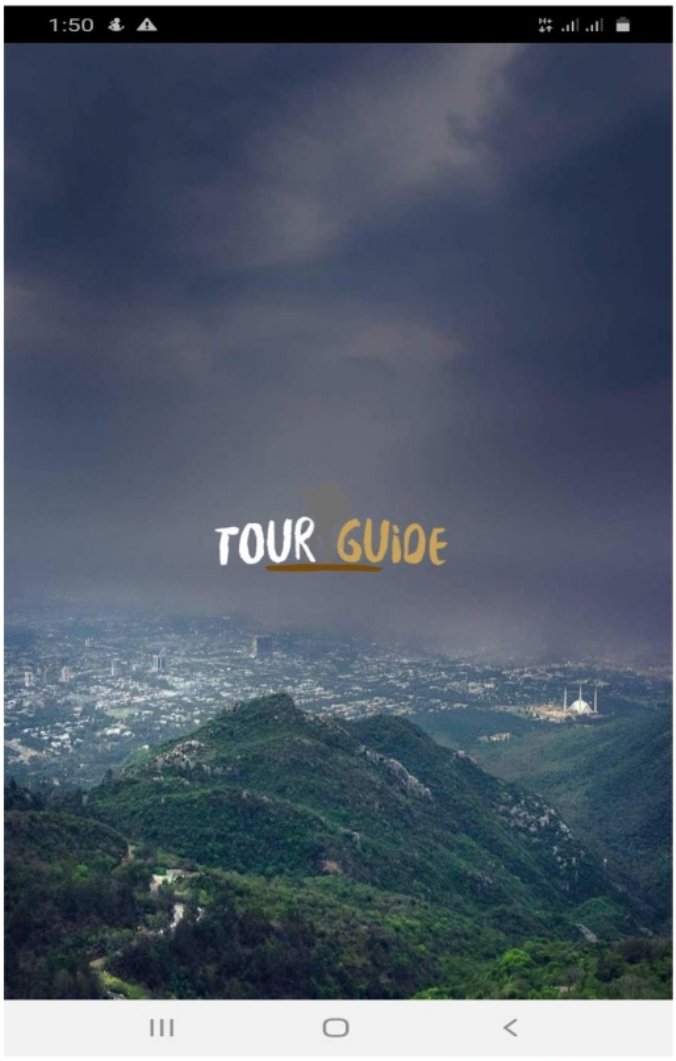

Figure 5.1: Splash Screen

Figure 5.1 shows the splash screen of the system. This screen is visible when user open this app. This screen is show for some specific seconds.

5.5.2 Login Activity

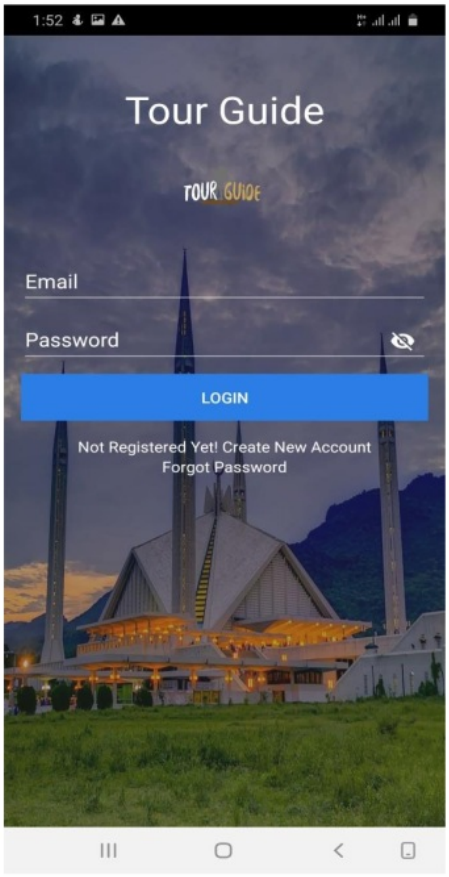

Figure 5.2: Login Activity

Figure 5.2 shows this is login screen. User can't proceed without login. Only valid email and password is accepted. Firebase authentication is used for authentication .From this activity if the user has not an account then he can go to registration activity by click here for register.

5.5.3 Registration Activity

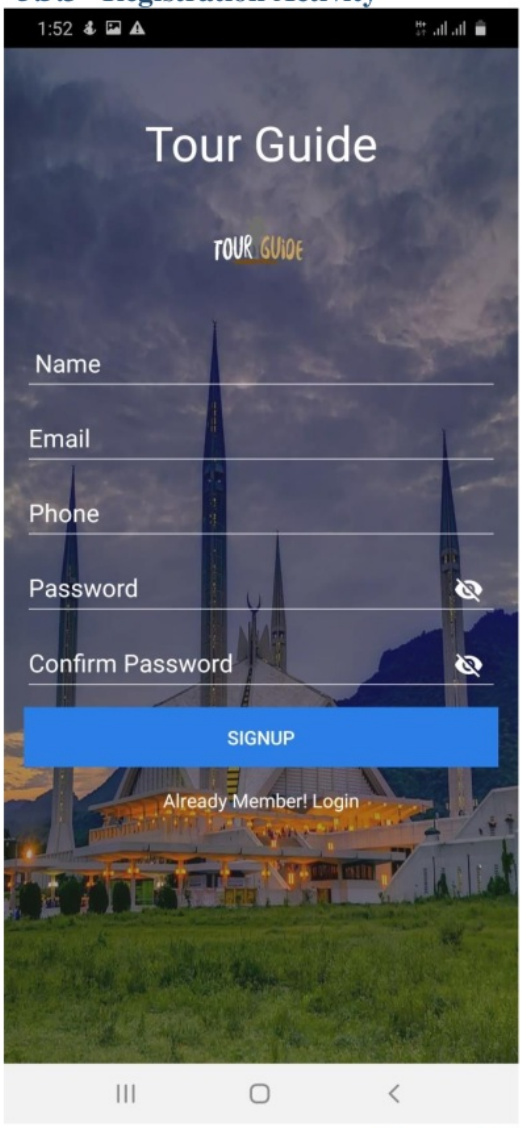

Figure 5.3: Registration Activity

Figure5.3shows the registration activity. The new user who want to register in the application can make account here and then can login.

5.5.4 User Forgot Password Activity

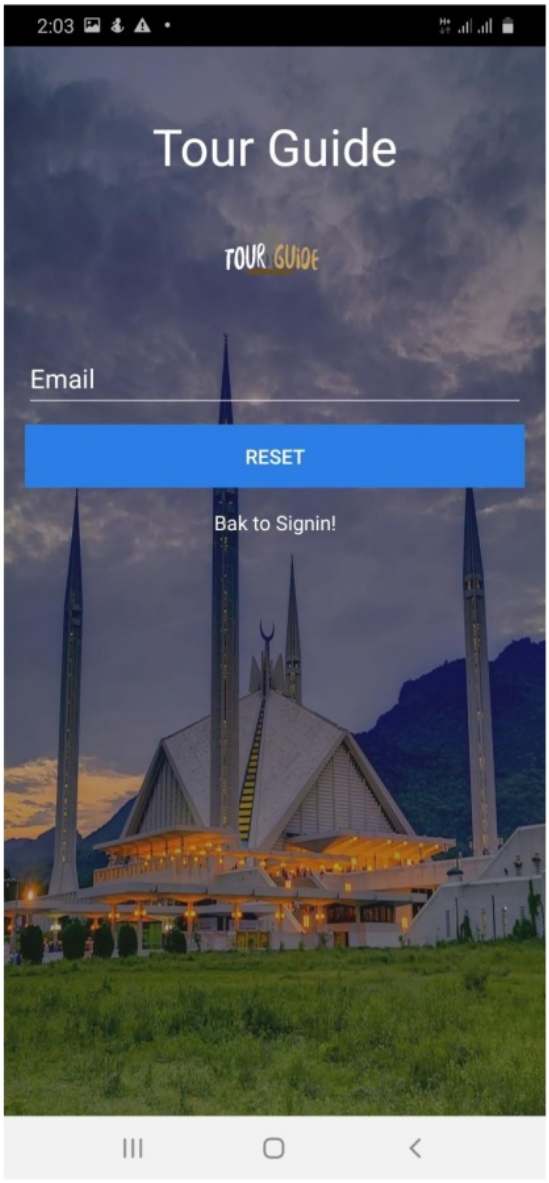

Figure 5.4: Forgot password Activity

Figure 5.4 shows forgot password activity. This activity if user want to change password or they forget password so they will use this activity for changing password.

5.5.5 Home Activity

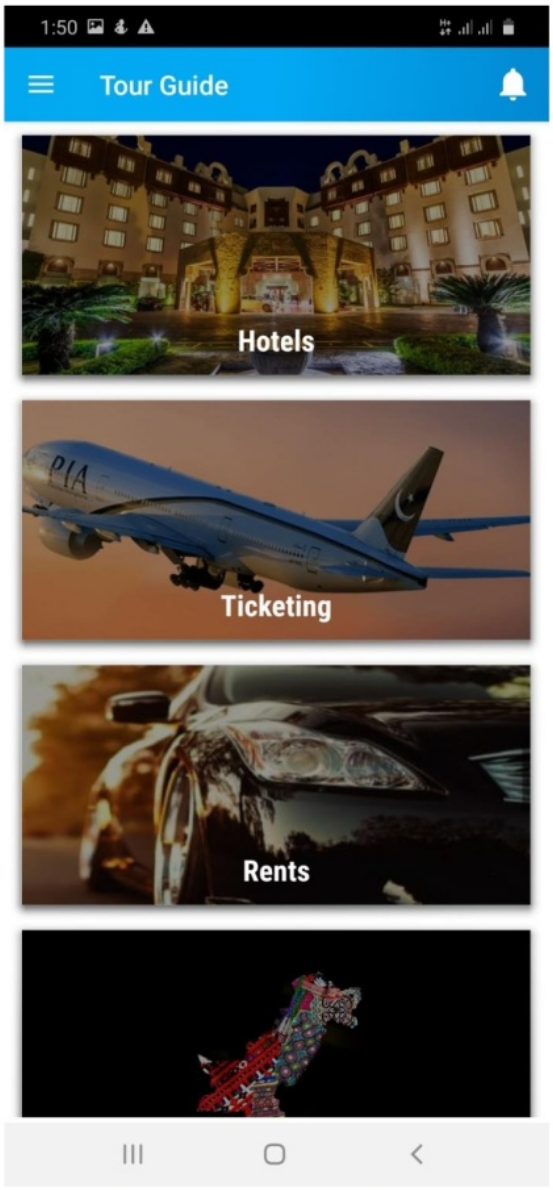

Figure 5.4: Home Activity

Figure 5.4 shows home activity. This activity if show home tabs for getting navigate into modules also this will provides services and points list etc search also.

5.5.6 Deals Activity

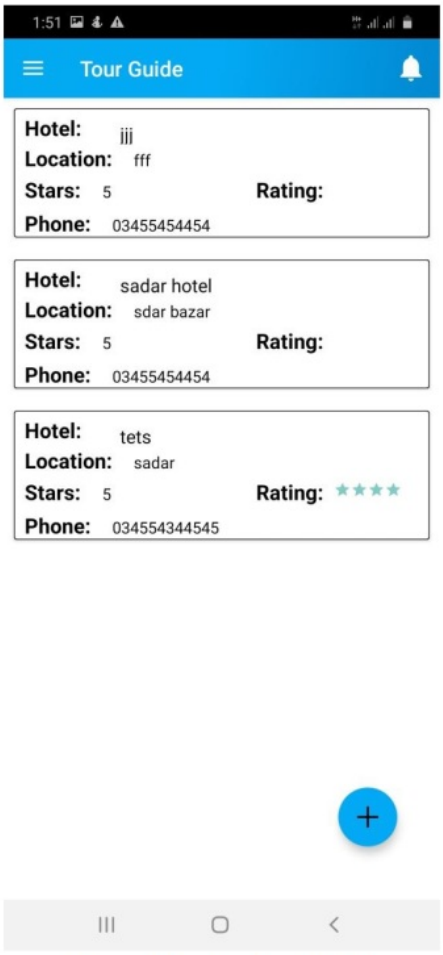

Figure 5.4: Deals Activity

Figure 5.4 shows deals activity. This activity if show Some location with their data and naviagate on that to next.

5.5.7 Setting Activity

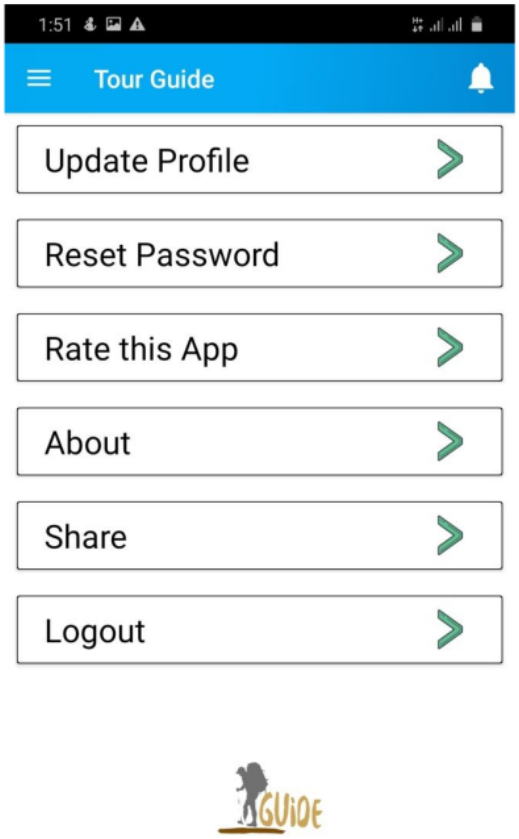

Figure 5.4: Home Activity

Figure 5.4 shows setting activity. This activity if show some option that are naviagate to next screeena nd perform some oiperation such as logout share app about app etc.

5.5.8 Share Popup Activity

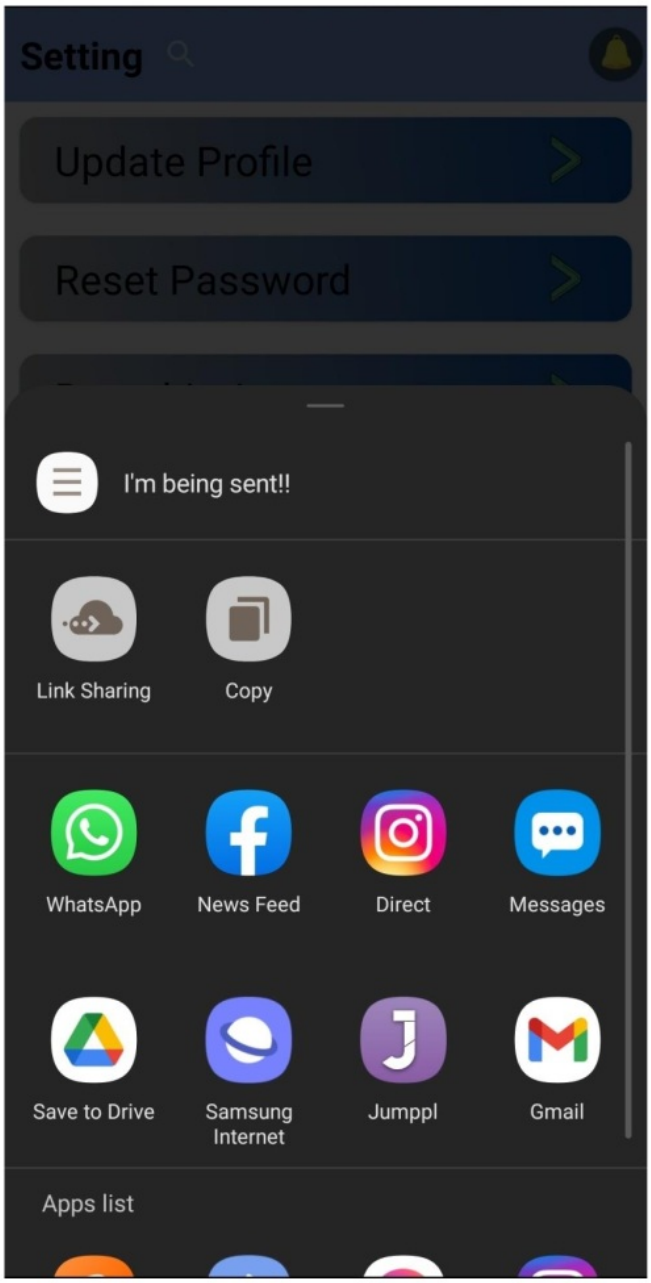

Figure 5.4: Home Activity

Figure 5.4 shows share popup in setting activity. This popup show some option of share app with other on different platforms.

Chapter 6

Testing

6.1 Testing

Testing is a mechanism to promise quality of a product, system, or capability. To be useful, testing cannot occur only at the end of a development. It must be addressed continuously throughout the entire life cycle. So, we have focused on thorough testing through-out the design and implementation phase. In evaluation we evaluate our application with unit testing, integration testing and system testing.

6.2 Unit testing

Unit testing is a software development process in which the lowest test able part so fan application, called units, are apart and respectivel y observed for proper operation. Unit testing can be done arduously but is often automatic. Each module in this application was tested and is working well.

6.3 Integration testing

Integration testing is the phase in software testing in which distinct software modules are collated and tested as a batch. It results after unit testing and earlier validation testing. Integration testing walks as its input modules that have been unit tested, batches them in larger results, applies tests defined in an integration test plan to those batches, and provides as its output the united system prepared for system testing.

6.4 System testing

System testing of software is testing led on entire, integrated system to assess the system's agreement with its agreed requirements. System testing stumbles within the scope of black-box testing, and as such, should require no understanding of the inside design of the code or logic. System testing is a more restricted type of testing; it pursues to detect defects both within the "inter-assemblages" and also within the entire system. Here the entire system is tested. The referencedocumentforthisprocessistherequirementdocumentandthegoalastoseeifsoftware meets its requirements.

6.5 Test cases

The tests cases are executed during the project development which is certified successfully as follows.

6.5.1 Test case 1 Sign Up

Table 6.1: Test case 1. Sign Up

Test No.	Test Conditions	Expected Results	Actual Outputs	Status
Test 1	Click on new user Button for signup without Email and Password	Toast is displayed Enter Required Info	Toast is displayed Please enter valid information	Pass
Test 2.	Enter Invalid Email and click on Signupbutton.	Toast is displayed Invalid Emailinput	Toast is displayed Invalid Email input	Pass
Test 3.	Enter Valid Email and password and click onRegister Button	Sign Up Successfully	Sign Up Successfully	Pass

6.5.2 Test case 2.Login

Table 6.2: Test case 2.Login

Test No.	Test Conditions	Expected Results	Actual Outputs	Status
Test 1	Click on Login button without entering Emailand password	Toast is displayed Please Enter Required Info	Toast is displayed Please Enter valid Input	Pass
Test 2.	Enter Invalid Email and click onLogin button.	Toast is displayed InvalidEmail	Toast is displayed Invalid Email	Pass
Test 3.	Enter Valid Email and password and clickonLoginbutton	Login Successfully	Login Successfully	Pass

6.5.3 Test case 3 Search/ See points

Table 6.3: Test case 3 Search/ See points

Test No.	Test Conditions	Expected Results	Actual Outputs	Status
Test 1	Search some data from search field on top of home page	Return result in list	Results will display in list.	Pass
Test 2	Enter transportation	Return some basic options like car, train and bus.	Return transportation list	Pass

Test case 4. Deals

Table 1.4: Test case 4. Deals

Test No.	Test Conditions	Expected Results	Actual Outputs	Status
Test 1	Click on deals tab and see if deals are available.	Return list of deals if there available	Return list of deals if there available	Pass
Test 2.	See Discount on that page	Return list of that if there available.	Return list if there available .	Pass

6.5.4 Test case 5. History

Table 6.5: Test case 5. Provide Transport

Test No.	Test Conditions	Expected Results	Actual Outputs	Status
Test 1	Click on history for open history view	Find some info about some specific poits and also get history of trips.	Find some info about some specific poits and also get history of trips.	Pass
Test 3.	Pin some tourist point	successfully.	successfully.	Pass

6.5.5 Test case 6. Setting

Table 6.6: Test case 6. Setting

Test No.	Test Conditions	Expected Results	Actual Outputs	Status
Test 1	Click on setting tab open a new page on which account info and other service for changing account info.	Sucessfuly change and update.	Sucessfuly change and update.	Pass
Test 2.	Perform logout form setting	logout successfully.	logout successfully.	Pass

Chapter 7

Conclusions and Future Work

7.1 Conclusion

We have developed android application in full working condition having expected functionalities. We have achieved our target goal.“Tour Guide App" is responsive android application which can easily accessed by user in his/her smart phone. It was our primary goal to develop such kind of application with sufficient performance. This app can be used by the tourist for his safety and reliability. .So a user can access the application anywhere and at any time. Through this application the people who need a dairy product in their area can upload their request online. This can be viewed by any seller who can provide them. They can contact each other and can fix a deal.

There is an easy facility for them to find each other through the Google maps. This application is available at mobile application stores or similar services, so that user can download it with out any cost. Admin will authenticate the users accounts and there uploads. After authentication there data will show in the related portals. If the admin does not authenticate the user accounts then they cannot further proceed. They cannot upload any product or transport related upload.

7.2 Future Work

Now our application is automating the dairy products like milk, butter or yogurt. In future we can further improve our android application through several ways like adding more products .In future we can add map also.Also we develop iOS app for this project and launch on appstore

Chapter 8

References

13

References

[1] https://play.google.com/store/apps/details?id=com.my.milk.dary&hl=en

[2] https://en.wikipedia.org/wiki/Google_Maps

[3] https://firebase.google.com/

[4] https://en.wikipedia.org/wiki/System_testing

Tourist Guide

ORIGINALITY REPORT

11%	8%	1%	11%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Myanmar Computer Company Ltd (MCC) - Yatanarpon Student Paper	2%
2	Submitted to Higher Education Commission Pakistan Student Paper	1%
3	Submitted to Coventry University Student Paper	1%
4	Submitted to Sunway Education Group Student Paper	1%
5	Submitted to University of Bahrain Student Paper	1%
6	Submitted to Good Shepherd International School Student Paper	1%
7	Submitted to Sri Lanka Institute of Information Technology Student Paper	1%
8	en.wikipedia.org	

	Internet Source	1%
9	Submitted to University of East London Student Paper	<1%
10	docplayer.net Internet Source	<1%
11	thediplomat.com Internet Source	<1%
12	Submitted to Asia Pacific International College Student Paper	<1%
13	senior.ceng.metu.edu.tr Internet Source	<1%
14	Submitted to Universiti Teknologi MARA Student Paper	<1%
15	Submitted to KDU College Sdn Bhd Student Paper	<1%
16	Submitted to Hoa Sen University Student Paper	<1%
17	Submitted to Rajarambapu Institute of Technology Student Paper	<1%
18	web.wpi.edu Internet Source	<1%
	Submitted to University of Ulster	

19	Student Paper	<1%
20	conservancy.umn.edu Internet Source	<1%
21	studentsrepo.um.edu.my Internet Source	<1%
22	dc.uwm.edu Internet Source	<1%
23	Submitted to Universiti Teknologi Malaysia Student Paper	<1%
24	gcecometa.weebly.com Internet Source	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		