

**TOUR & TRAVEL
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Bachelor of Science in Computer Science and Engineering

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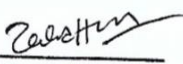
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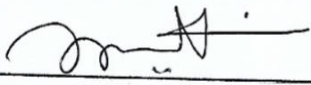
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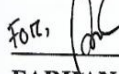
We hereby declare that, this project has been done by us under the supervision of **Md. Azizul Hakim, Lecturer**, Department of CSE, Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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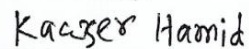
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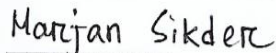


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ABSTRACT

The aim of our project and report is to give proper guide & save time about tour for the public .It will help and facilitate to operate a mobile phone. There are very few apps on this sector but have a lot of lacks alongside. Our project is Travel Guide apps using Android studio is developed so that users can view the information of nearby travel places, resorts and this apps also give idea about budget. We are also add google maps for better experience of users. The apps that we are developing requires sometime an active internet connection , it's helps to select the nearby resorts, hotels, restaurant's, ATM, police station, zoo, museum's, parks, hospitals instantly by tracing the user's location using GPS. Thus this apps helps the required info quicker and also helps by rights way.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Tour& Travel is an android application. The whole application is developed by android platform so that Bangladeshi traveller can explore the application in a smart way. When user open this application, user can see the most attractive interface with beautiful animation. In this application, user can see the description and information about the all attractive and beautiful places in Bangladesh. All the places are distributed as division and district wise that can help the user to find out the particular place in an easiest way. Information's are decorated in a disciplinary way. In a word, the application wants to represent the beautiful Bangladesh to the user. User can view the navigation drawer where the main features are being included. On the other side in this application nearest place is the main attractive feature. User can find the nearest tourist and beautiful places from user's exact present location. Most popular places and important videos are also shown in the application.

In this application, admin will maintain the admin panel to update or doing necessary things to include new features and information for the application purpose.

1.2 Motivation

Every man wants to explore and want to experience new thing. Travelling is the best way to help this kind of refreshment. Now-a-days people prefer to travel because of easy transport and better security. But among these facilities many people face other problem to travel for proper and appropriate guidance. In this application, people can easily travel in a proper and best guidance. Some people have no idea about tourism and travelling but they want to travel for their refreshment and pleasure. So, they face difficulties. This application also helps them to find out the tourist place because the application is so user friendly and very informative to go on.

In order to give the better option to explore the new tourism the application can help the user to make the best choice to travel.

1.3 Objectives

In order to get information or anything else user must need to generate the application in a certain way. The application starts with its interface, show the features and navigation drawer. It will show the Bangladeshi most popular and famous places, their information, tour plan and also videos. Nearest tourist place will find out easily through the application. It will also make a tour plane to the user. Weather update also available for the places to go.

Admin panel maintain and update this term to ensure the better information and new facilities.

1.4 Expected Outcome

Many of us travel without proper knowledge. Because they may not go before at their selected tourist place. For that reason, they suffer many and could not enjoy the tour. Sometimes they face many difficulties for their own mistakes and lack of proper knowledge to travel. The application is very helpful for travelling for any kind of traveller who wants to go travel peacefully.

The traveller does not need to be anxious about tour. Because this application helps him to find out the place where traveller wants to go and also guide in a better way. The description and information of the tourist places also makes the traveller more informative and knowledgeable. Traveller can easily make an idea to choose the place and decide. Weather update, distance from traveller's present location and others option will help to decide.

Before no application give this opportunity to give tour plan and nearest tourist places to the traveller. So that we hope that everyone will enjoy this application and use it friendly with love. Because it will give the only best option to guide a traveller

1.5 Report Layout

We decorate our whole report is as follows. Chapter 2: Background- Introduction, Related Works, Comparative Studies, Scope of the Problem, Challenges. Chapter 3: Requirement Specification- Business Process Modeling, Requirement Collection and Analysis, Use Case Modeling and Description, Design Requirements. Chapter 4: Design Specification. Chapter 5: Implementation and Testing, Chapter 6: Conclusion and Future Scope.

CHAPTER 2

BACKGROUND

2.1 Introduction

Travellers always prefer to go anywhere in an easiest and comfortable way. This application is for that travellers or who wants to know the way of travelling in detail and get the total information plan to explore. It is a complete travel guide android application. Anyone can explore Bangladesh with the help of this application and can see the beauty of our Bangladesh.

2.2 Related Works

When we decided to make this travelling-based application we need to gather information about other related works. We researched for android application in many websites and playstore[1]. We have also gone through the mobile application development and learned programming language for this. There is some related application we found in play store and other. Such as Bangladesh Travel Guide[2]., Tourism in Bangladesh[3]., Bangladesh Vromon[4], Tourism[5]., BD Tour[6]. But all this application has the same features to each other. So that in our application we want show the unique and attractive features to the user where they can enjoy the better option to explore the application.

2.3 Comparative Studies

If we compare this application to the general application about travelling we will find many comparisons. In this application we give the transport facilities and hotel booking information. Weather update is will also available for the current location. Nearest tourist place from the traveller current location and give the detail information and plan about the place. That is the unique feature of this application and can differ from other application. Many important information, videos, gallery and other option is available in this application which was not done before in other application.

2.4 Scope of the Problem

We have faced many problems while doing this android application. Actually, this application contains many valuable data information and which is always updating. So, data collection and make it easier to the user to use is the main problem for us. Then we need to create an attractive interface to fascinating the user. We have faced different problem while doing this project. Most important was integrating google maps. It was also e problem for us how to construct the interface. How we decorate this option which was the main fact.

2.5 Challenges

This application is useful who is loved to travel and also want to gather knowledge. This apps help users to find out the nearest travelling place and also give the direction with the budget. That is more important for the travellers. We faced challenges in many ways. Working with google Maps is very challenging.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modelling

Business process modelling (BPM) is the process for identifying processes and representing it with models like flowchart, use case activity diagram. For this apps, flow chart has been created which is given downside –

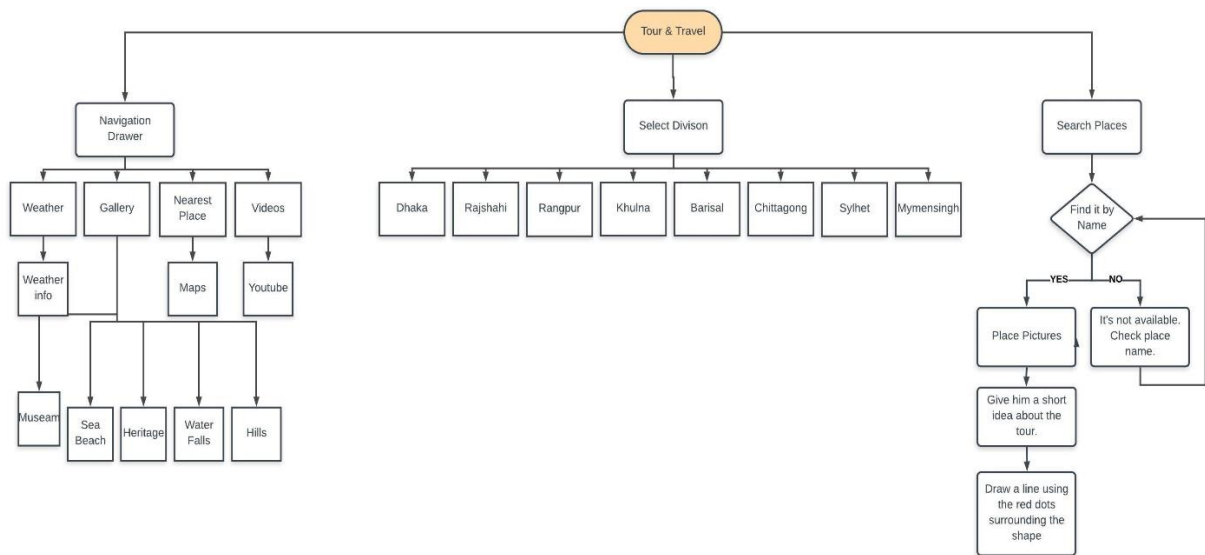


Figure 3.1.1 - Business Process Modelling

3.2 Requirement Collection and Analysis

One of the most important part for any project is collecting requirement and analysis this. The full project is based on the knowledge of traveling. There is no good project which aren't without proper planning the requirements. There are many projects which was failed for the false or insufficient requirements. There are many problem faces for the project. One of the important problem is if the project management committee fails to capture all the necessary for the solution, the project will be fall in rick. This project may load many problems which in future, the full project can be damaged. So, need to collect

all information and analysis them and find out the necessary features for project needs. This way we have all the all the specifications of the project on details which is very user friendly to everyone. We collected many apps from many different website and analysis them and also saw some documents.

There are many ways to collect requirements. But in ours, we used some methodologies:

Online survey: We are checked many different exiting apps on this sector. We noted requirements and take best features of it.

Meet People: We are take interview from public and try to collect their problems. In this way, we gather many ways from them.

3.3 Use Case Modelling and Description

UML means Unified Modelling Language. A use case diagram can summarize the details of your system's users (also known as actors) and their interactions with the system.

- Scenarios in which your system or apps interacts with public, organizations, or external systems.
- Goals that your system or apps helps those entities (known as actors) achieve.

3.4 ER Diagram

ER Diagram means Entity Relationship Diagram which is type of flowchart that illustrates entities (user/people) relates with system. ER diagram is design relational database in field of Engineering.

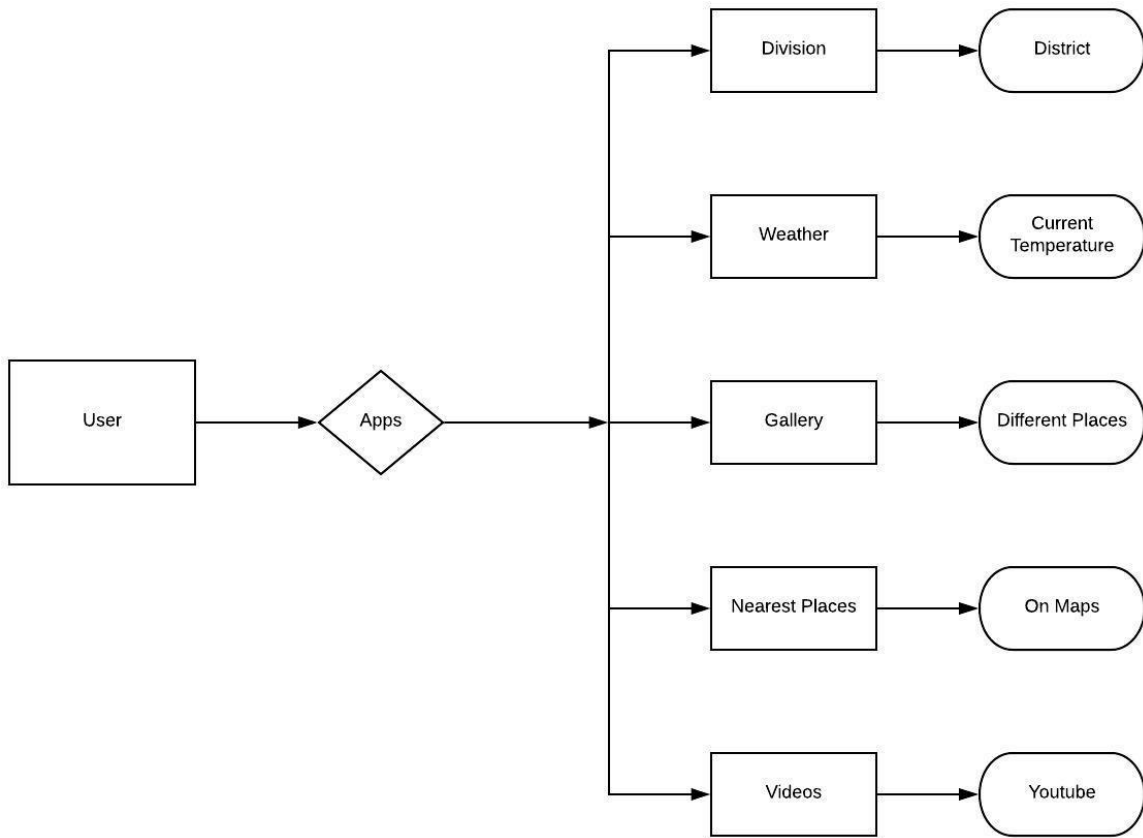


Fig 3.4.1 : Entity Relationship Diagram

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design:

Android application is basically classified in two way such as front-end and back-end. Front-end actually visualize the application which is shown to the user. That means the part which is visible to the user and attract is front-end design. In this application the front-end design is very much attractive and user friendly to the general user. This is very basic design and known as Front-end Engineering Design.

After installing our application user open the application. Then user see the splash screen Beautiful Bangladesh for a second which attracts more to user.



Figure 4.1.1- Splash screen

After that it will show the main interface and options. Home page contains the division and then district wise tourist places.

This is the following figure 4.1.2

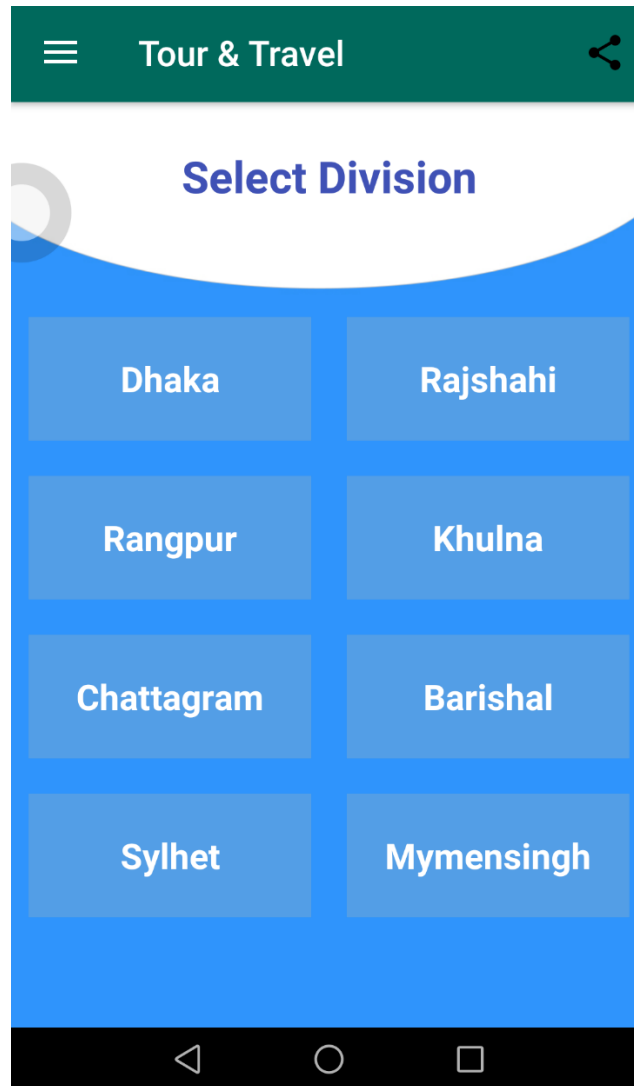


Figure 4.1.2- Application Home page


For an example, clicking Dhaka division user can see the district of Dhaka division and each district contains its own tourist places and their full information up to date. The figure 4.1.3 is given below to see.



Figure 4.1.3- Districts of Dhaka Division

Suppose user click the Dhaka district from Dhaka division it will show the tourist places information of Dhaka city.

Ahsan Manzil



Lalbagh Fort (also Fort Aurangabad) is an incomplete 17th century Mughal fort complex that stands before the Buriganga River in the southwestern part of Dhaka, Bangladesh. The construction was started in 1678 AD by Mughal Subahdar Muhammad Azam Shah who was son of Emperor Aurangzeb and later emperor himself. His successor, Shaista Khan, did not continue the work, though he stayed in Dhaka up to 1688.

Address: Lalbagh Rd, Dhaka
Opening and Closing Time:
Friday 9AM-5 PM
Saturday 9AM-5PM
Thursday 9AM-5PM
Monday 2PM-5PM
Tuesday 9AM-5PM
Wednesday 9AM-5PM
Sunday Closed.

Figure 4.1.4- Place up to date information

Then clicking left side navigation bar it will show the options to the user in following figure 4.1.3

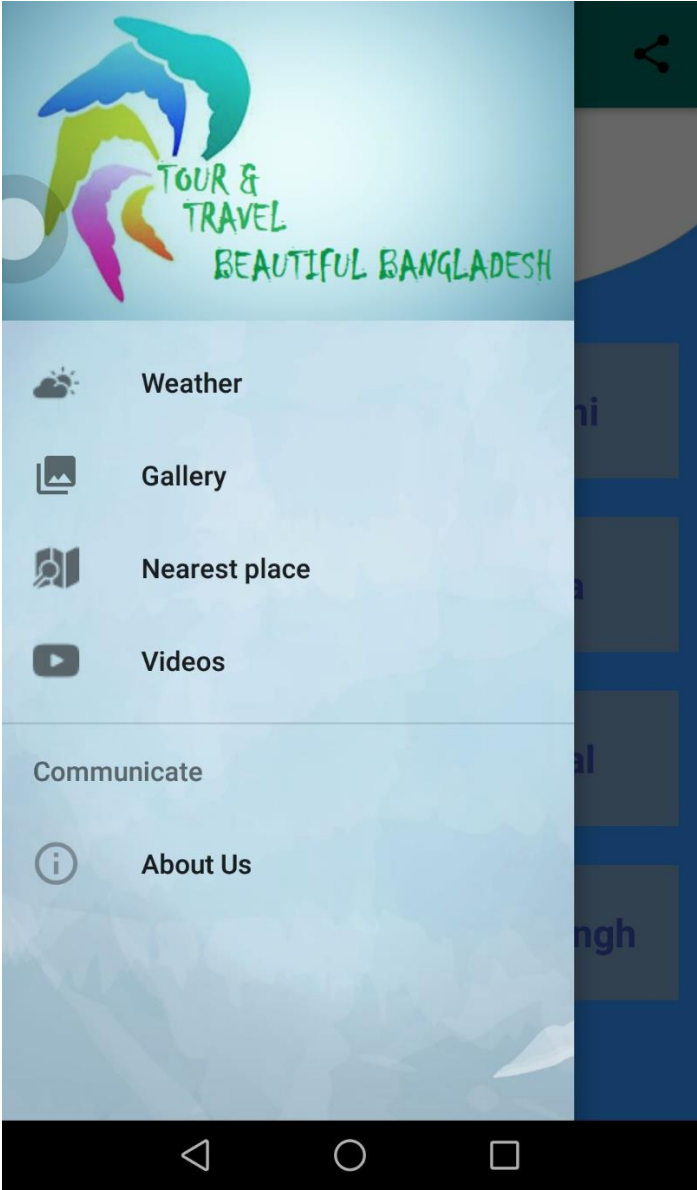


Figure 4.1.5- Application Options

Options contain the list of weather, Gallery, Nearest place and videos. Weather Option give the user weather updates.



Figure 4.1.6- Weather

Following figure is Gallery option. It contains Museums, Beach,Heritage,Waterfalls and Hills. Information of this options are given in below figure.

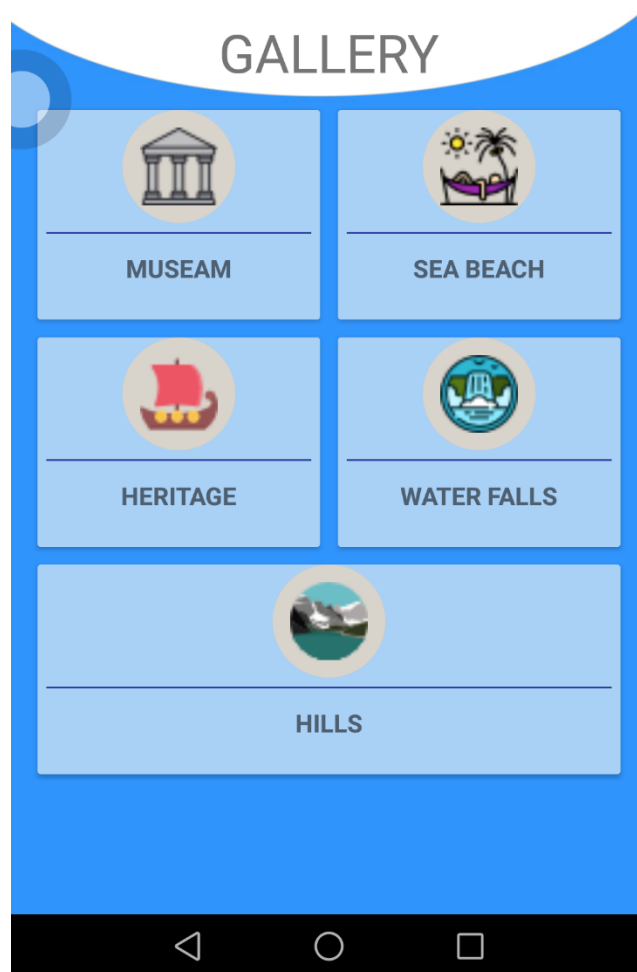


Figure 4.1.7- Gallery

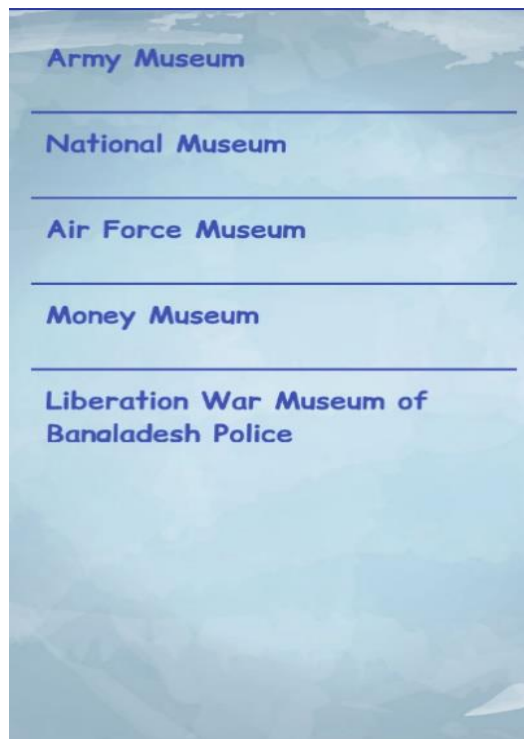


Figure 4.1.8-Details about Museum



Figure 4.1.9- Details about Sea beach

Lalbag Fort
Jatiyo Smriti Soudho
Sonargaon
Ahsan Manzil
Shaḥ Gombuj Masjid
The Sundarbans
Paharpur Buddha Bihar
MahasthanGarh

Figure 4.1.10-Details about Heritage

Hum Hum
Jadipai waterfall
Khoiyachora Waterfall
Madhabkunda waterfall
Nafa-khum

Figure 4.1.11-Details for water falls

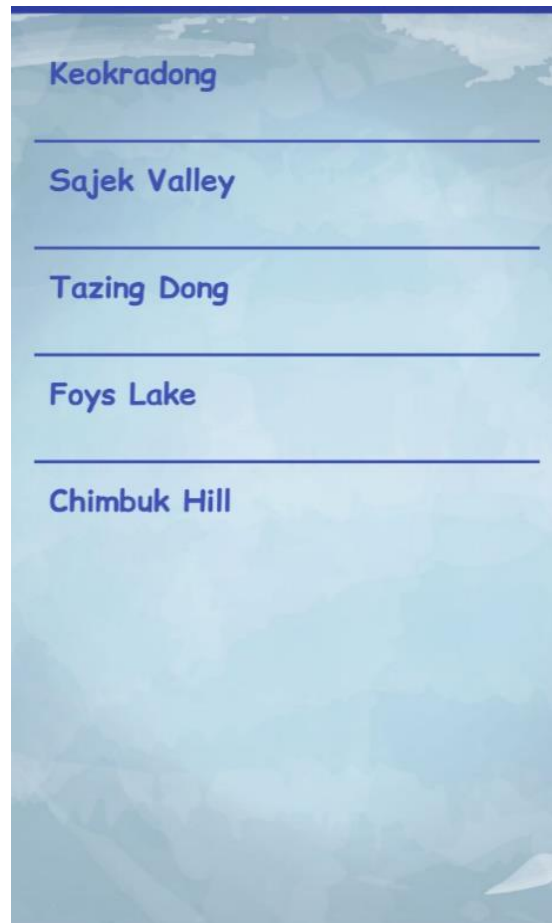


Figure 4.1.12-Details for Hills

Nearest place is the most important and unique feature in this application. It helps the user find out his location and from that location it shows the nearest restaurant, ATM, lodging, police station, hospitals, zoo, museums, parks .Another option videos also screaming the video presentation (linked with YouTube) about tourist place.

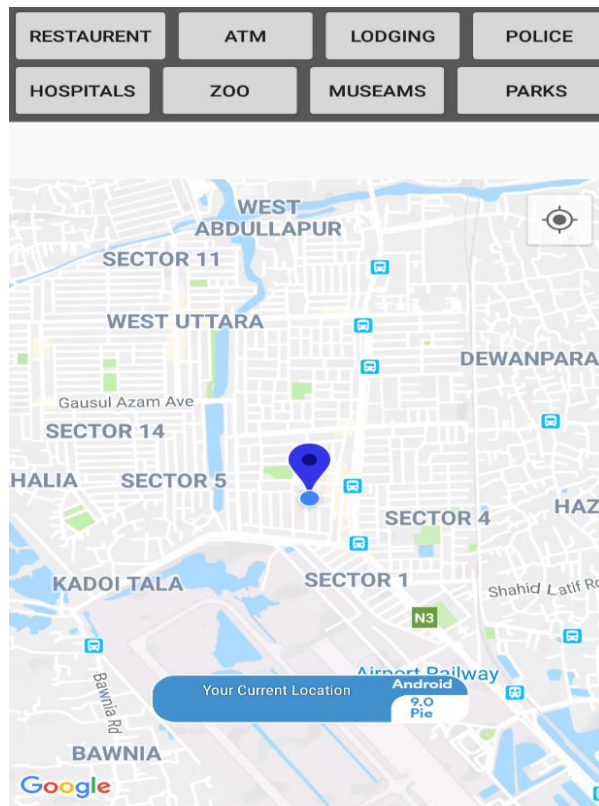


Figure 4.1.13-Neaest places

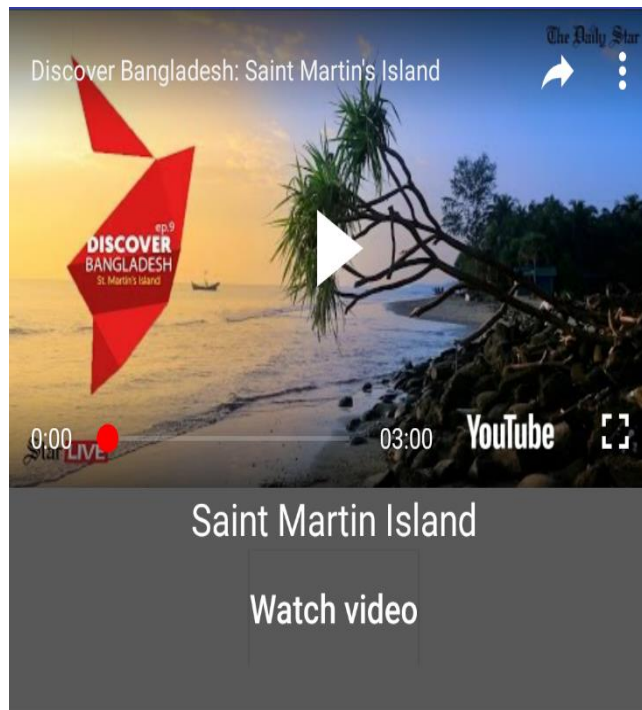


Figure 4.1.14-video

4.2 Back-end Design:

In this application for back-end design we have worked with Java, MySQL, API.

4.2.1 JAVA

Java is designed to be an independent platform to secure machine and it is object-oriented programming.

4.2.2 MySQL

MySQL is open source database management system and it is oracle backed. This system can run on any platform and stores, manipulate and retrieve the data information in database as a language.

4.2.3 API

“An application programming interface” API is intermediary which allows two server or application to communicate each other and combined properly as a messenger or medium interface. So, in this application we work with weather API[7], Google Maps API[8], Youtube API. Weather API appear the current location temperature .Google Map API call the client to find out the current location using Google Map API key[9] and request for the nearest places .For screaming video youtube API[10]is used severely to interact software component.

4.3 Interaction Design and UX:

User experience design (UX) is the way of increasing the user satisfaction with a product by improving the accessibility, pleasure and the quality of being able to provide good service.

So, UX design is digital or physical products that are useful and very easy to use, and charming to interact with the user. It's about presenting the experience that people have

while interacting with your application. It also makes sure that they can find the value which you're providing.

Considering all these things our application is designed so simply that a user can use it easily.

4.4 Implementation Requirements:

Implementation is the carrying out, execution, or practice of a plan, a method, or any design, idea, model, specification, standard or policy for doing something.

Hardware requirements is that it must be android operation system-based device and Software requirements is Ice cream Sandwich (4.0.2) or higher.

CHAPTER 05

IMPLEMENTATION & TESTING

5.1 Implementation of Database

The implementation of database is the installation of DBMS on the hardware and it optimizes the database information to console both hardware and software. It creates and load the database. The initial data directly imported from MariaDB or another database. With applicable requirements it could be identified the various giving user access.

Implementation of database occurred in two places -

- Local database a mobile end.
- Remote database

In this application, we use MySQL database management system to show the image data from the host[11]. The main advantage of this system if it synchronized once, it will be loaded to the application. And that's why it doesn't need any synchronization for further loading.

For fast and efficient image loading library for this android app here we use glide library[12]. Easy to use API for smooth scrolling. Glide supports fetching, decoding, and displaying video stills, images.

Glide uses a simple fluent API that allows users to make most requests in a single line:

Glide with fragment.

- Load URL
- Into image View

For users to have a great experience with an app, images must not only appear quickly, but they must also do so without causing lots of junk and stuttering from main thread I/O or excessive garbage collections.

5.2 Implementation of Front-end Design

Activity is the front-end screen in android application. Each activity there will be layout and one xml file to design the whole content. Design is the visual effect for the front-end design.so the design is-

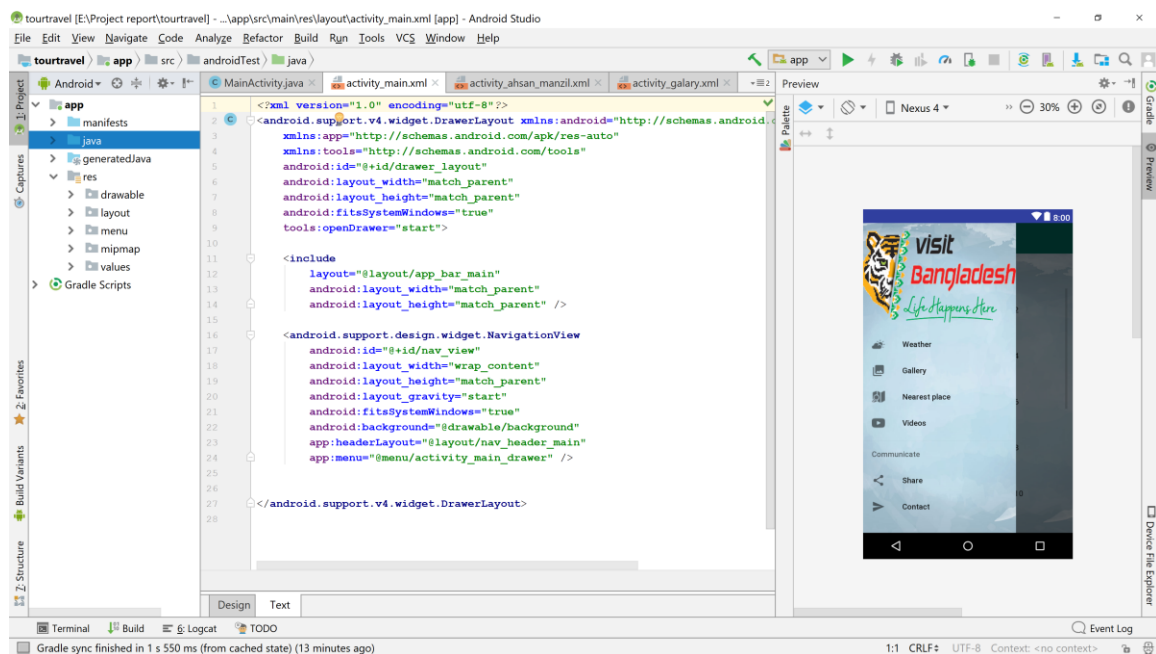


Figure 5.2.1 :Navigation bar

5.3 Implementation of Interactions

In this project, there are some layers to implement the interactions. All layer has some particular works and interactions.

- Weather Layer: To give the weather update from the current location.
- View Layer: This is user interface to show the screen.
- Database Layer: Here data stored, manipulates, uploading and fetching.

- Application Layer: Logic, API integration, library and java is done here.
- Map Layer: To get the exact direction and find out the nearest place.
- Video Layer: Streaming the video from the YouTube code via video API.

5.4 Testing Implementation

Project meet the goal when it meets the best quality. So, its need to test the project carefully using some testing techniques and identify problems to solve.

5.4.1 Testing

In our project we use some methods to test our application for identifying bugs and faults. They are-

5.4.2 Unit test

Unit testing is that testing where the smallest part is being tested to determine if they fit for use. It is an automatic process and performed correctly. In our project we performed unit this test normally and there was some error and we fixed that in a proper way of testing unit methods. We find the software bugs early and did debugging process and reduced the bugs.

5.4.3 System test

System testing verifies the all elements work properly and perform function system. System testing was done by installing our apps in many configured mobile devices and use many versions of android OS. Using this testing we removed the errors in code for installation configuration.

5.4.4 Validation test

Validation testing evaluates the products of developments phase to find out requirements which is specified. So, after this testing we didn't find any error and bugs.

5.5 Test Results and Reports

Testing involves with the execution of the application or software with no bugs and faults. Bugs and faults prevent the application to open or work properly. So, the application give error .Developer faces many difficulties to when it is error. It could be code error, network error, input error, database fetching error. All types of bugs can be fixed by debugging and taking many steps.

In our project we faced some errors. Some of them are given below-

“Weather update failed”. This error occurs when server is not available or weather API key is lost. Then we find the problem that server connection is ok but the API key was wrong and we put the right one on the code to display the accurate weather update.

“Error google map API”. This error occurs when application cannot find the current location. In that case, we fix the longitude and latitude to input in Maps and pin the location where we want and check. After that it worked properly.

“End of communication channel”. This error occurs while database become failed to show the image at the time of fetching the images from the MySQL databases. Because of network failure this happens. To overcome this problem, we need to connect database and fix the error.

Finally, the project responds correctly to all kinds of process, perform smoothly and the result is sufficiently usable.

CHAPTER 6

CONCLUSION AND FUTURE SCOPES

6.1 Discussion and Conclusion:

The purpose of this android application to give the proper and best guide to the travelers. The traveler can easily access the application and get informed about the place where he or she wants go. The complete guideline is decorated in this application sequentially. User can find the place and confirm about the place details. It helps the user to find out the place location and other facilities. In in application, only admin that means the project developers can control the whole application and give the best advantages to the application user. So, the whole application is very useful and so much easy to user and they must love it we hope that.

6.2 Limitations

- 1.The application doesn't have any search option to search the place. We add these features as soon as possible.
- 2.In this application user haven't any option to make user account to confirm extra facilities.
- 3.The application is only for the Bangladeshi tourist places.

6.3 Scope for Future Development

- 1.It is our target to make this application for the worldwide tourist places and add other extra facilities.
2. People from anywhere and anyplace can access the application to visit the world in an easiest way through this application facilities.
- 3.We hope in future we will add with a well-known travel agency.

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