

“TRAVEL BD”- AN ANDROID APP FOR THE TRAVEL LOVER

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This Report Presented in Unfinished Success of the Requirements for the Degree
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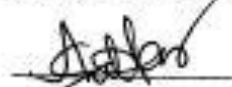
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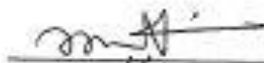
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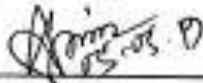
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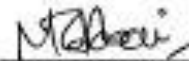
We hereby announce that, this project has done by us under the direction of **Md. Rayhan Amin, Lecturer of CSE department, Daffodil International University**. We also announce that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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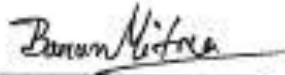


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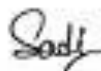
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ABSTRACT

The aim of this project is to help the people who like to update their lifestyle through the topmost use of modern technology. This service deals with every citizen of our country. By using this service an individual can store all his necessary data in a particular place. There will be information about tourism places, park, hotel resort, historical places etc. Many people in Bangladesh enjoy capturing the visual, historical, and experiential contexts that landmarks offer as they travel. These individuals, however, use disjoint resources to plan trips, reducing the quality of the narrative experience they receive when visiting a place. To facilitate the narrativization of a place and create a shared experience of that place, I created an Android smartphone application, which allows users to explore basic facts, photographs, historical details, and travelers' experiences. Citizens and foreign tourist are expected to be benefited through this service. We have done this project by using is, Android Studio, XML, Language: JAVA, Database: Firebase. After execution, the system is tested in various circumstances and it is proved effective as a demo application.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

TRAVELBD stands for Tourism. As we are given Bangladesh all historical and tourism places and other all details in one app. “**TRAVELBD**” identify in our historical and tourism places in our country. “Travelbd” app will include every historical information of an individual .TRAVELBD is a digital process where information is being brought together and available for the users from anywhere. A user can use easily and took information in anywhere and anytime. This is a warehouse of information of Bangladesh.

These data collected by the internet and other sectors. User as well as the citizen can know these information directly. User can use these data by copying or get a photocopy version of it.

We are trying to do a better approach to use those data by sending it to there where it is needed.

1.2 Motivation of Work

Main motivation of this project is to promote this type of application which is for people and all types of tourism lover of our country. So it is quite easy for the user to activate this system.

TRAVELBD aims to virtually given all data of our country people. If you get data is virtually arranged, you don't have to run here and there. Data can be used in many areas. Sitting in your home you know all information any tourist palaces, park and tourism hotel, resort information. The people can ensure the misuse of information and build a corruption free database where user will not have to pay to get this information.

1.3 Objectives

➤ **One Stoppage For all Tourism Places Data**

Here is the place all tourism data is given. Anyone can access this data. This data given in bangle. So that any person who have android phone, he/she can understand this language in Bangladesh.

➤ **Create a mobile app to user end**

- Define and research your **app**.
- **Create** and test your **app's** layout and **use** cases.
- Choose your development path based on your resources.
- Build and test your **app** without a single dollar spent.
- Launch your first **app** in a matter of weeks with a minimum cost.

➤ **Use those tourism data for public use**

Tourism is travel for pleasure and business. We are developed this system for public demand. Public always search easy and easier way to find data. So that we developed this system and user get benefited to this service and get data easily.

➤ **Making data more authentic**

We are tried always authentic. In future data are more authentic in our app and we developed it users demand.

➤ **More access able**

- This app are more access able for the user. User can easily use this app. They don't need
- To create account. An illiterate person easily use this app.

➤ **Reducing trouble and saving time**

User can save his time to use this app. They know easily any details of Bangladesh tourism places, historical places, park, resort and hotel etc.

1.4 Expected Outcome

➤ **Analog data will turn into digital data**

An analog-to-digital converter, or ADC as it is more usually called, is a device that converts analog signals into digital signals. The signals are turned back into digital form at the receiving end so that the computer can process the data in its digital format.

➤ **Saving time**

Easily see the places what user need and take information about that place.

➤ **Smart database**

Simple Segmental Architecture Inquiry Tool is a biological database that is used in the identification and analysis of protein domains within protein arrangements.

Data from smart was used in creating the Well-looked-after Domain Database collection and is also distributed as part of the Inter Pro database.

➤ **System Data recycling**

One method I've seen prosper again and again is data recycling. Data recycling is using data from other contexts to bootstrap your initial arithmetical models until you can accumulate live data.

1.5 Report Layout

This report covers extra part in the given way. In chapter 2 .we will preserve the dialogue about the background of this service and say about full details, connected work and relative studies, problems that may arise and challenges of this project. After this chapter complete then in next chapter we will discuss about condition disclaimers including business process modeling, requirement collection and analysis and use of case modeling and description. After this chapter we will also discuss about logical data model and design requirements in this chapter.

After this chapter then we will discuss about front end design, back end design, interaction design and UX and also discussed about implemented requirements in chapter 4 named design specification. Implementation and front-end design and implementation of interaction along with testing implementation and test results and reports will be discussed under the name of Implementation and Testing in chapter 5. In chapter 6 the conclusion will be done by discussing discussion and conclusion and scope for further developments.

CHAPTER 2

BACKGROUND

2.1 Introduction

We developed a system which can interconnect the all tourism places related databases .It is very easy when all data of tourist places will be reserved in one place, so we can use this information in right time. By relating this sort of system, people can easily get those needed data which are more used. We use solid design principal in app. Each BaaS provider offers a slightly different set of backend tools and resources. Among the most common services provided are push notifications, file storage and sharing, integration with social networks such as Facebook and twitter, location services, database persistence and queries, messaging and chat functions, user management, running business logic, and usage analysis tools. This library adds support for the Action bar User interface design pattern. This library contains support for material design user interface implementations. Most of the people of our country has smart devices to use this application and get the real benefit.

2.2 Comparative Studies

This application developed us is completely isolated from other application which already exist since we are trying to introduce our unique application and database system in our peoples. This system people are satisfied to use. People can't bored to use this app. They are more some developed country has already implemented this kind of application.

2.3 Related Works

We saw some android apps in google play store. But they are quite different from us. They give small features and simple user interface. We include some screen shot for Example for better understanding.



Fig 2.3: Related Works

2.4 Scope of the Problem

➤ Friendly user interface

User-friendly defines a hardware device or software interface that is easy to use. It is "friendly" to the user, meaning it is not hard to learn or understand. While "user-friendly" is a particular term, the following are several common characteristics found in user-friendly interfaces.

➤ Updated information

When any place are destroy or develop then we update our information quickly for tourist people. We check every places and update information.

➤ **Easy access of the information**

User easily access the information in any time in any place. They only need to online data connection and easily see information any places.

2.5 Challenges

➤ **Collecting all historical and non-historical data from places**

We are collecting all historical and non-historical information from places for people purpose. They can know easily about historical and non-historical places. So we trying to collecting accurately all information and set data in system.

➤ **Building a simple user interface**

This application given a simple user interface, that's why user easily can use this application .Home page, search bar, map direction ,hotel information ,blog information all are given .So that, This application is the best choice for travel lover.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business process modeling

It is a strategy agency of a company's business strategy and work progress, a medium of identifying potentiality of improvement. It can be done following many methods like flowcharts and data-flow diagram.

3.1.1 Business processing model

We are using responsive method as a business processing model of our project for the reasons given below:

1. Working application is delivered
2. Frequently Improve Process Communication
3. Increase Controller and Consistency
4. Improve Operative Efficacies

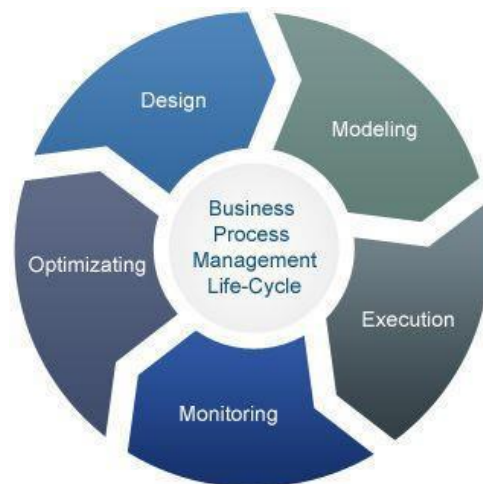


Figure 3.1.1: Business processing model

3.2 Requirement Collection & Analysis

3.2.1 Software Requirements:

- Android Studio IDE
- Android virtual device

- Database: Firebase
- Firebase storage
- Firebase hosting
- Firebase authentication
- Adobe Photoshop

3.2.2 Hardware Requirements:

Operating system:

Windows Android supported device

Computer configuration:

- RAM-8GB (minimum)
- Hard Disk- 150GB (minimum)
- Processor- 1.5GHz (minimum)

3.3 Use Case Modeling and Description

It is a system that allows a user to connect and get all data to the database. Every use case should give some reasonable, to the point and authentic result to the participator or providers of the application. It is used for the specification of required information, why those are required, what is the need of those required information, what is supposed to be done by the server, how the required information pose with the surrounding so that it can offer its service.

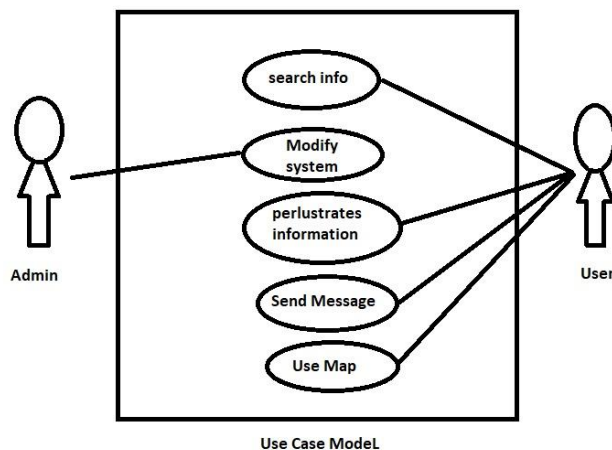


Figure 3.3: Use case diagram

Use Cases	User of The Application
Primary Actor	User
Pre-Condition	User don't need any Account for Log In.
Description	Generally User can browse or see all the details. He/she will get all listed Services.

Table 3.3: Illustrates the idea of use cases of different users.

3.4 Logical Data Model

Logical data models represent the abstract structure of a domain of information. [3] It is a map of the whole project. Access this user directly use this system. System will provide those data in real-time.

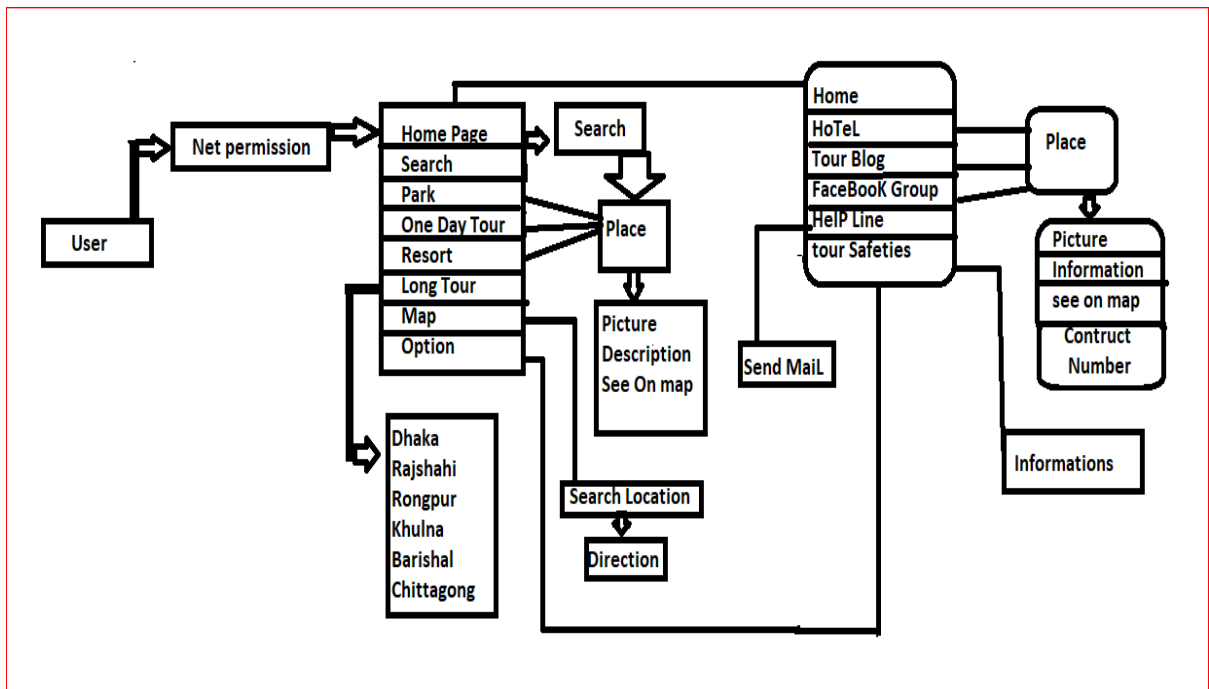


Figure 3.4: E-R Diagram of the Proposed System

3.5 Design Requirements

In product development and development optimization, a requirement is a remarkable documented physical or functional need that an actual design, product or process aims to satisfy. We use material design, android design support library and backend we use firebase. We use material design to give the application smooth, Naturalize and gorgeous. Material design have well documented rules and delivers poise. Material design give virtual feel to the objects. Response like the user implicitly that they are interacting with a virtual object and prompts them to take a physic course of achievement. Material design borrow the best features from skeuomorphism .So material design is very important part in design requirements.

Android design support library worked backend. We use many features and classes and Fragment class, context class, intent class, loader class, content resolver class etc. The Card view, app compact Dialog, notification compact, search view etc and also user firebase to store application data. We know real-time database can store. The synchronize data with No SQL cloud database. Google has analytics for firebase is become smarter by providing free and ultimate reporting for 500 distinct events. Fast and secure way to use firebase database. Its makes be business smarter and its gives multi-platform authentication with firebase, free firebase dynamic links and improve app quality by using firebase crashlytics.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design Specification

In front end design, we kept our outlook of this application simple and friendly to users so that they can navigate every option easily. Details are given below.

4.1.1 User authentication

A user no need given personal data to this app.

4.1.2 Home page

After logging in, user will go to home page with different options. In this page everything is ordered systematically. Information are not scattered in this page. They are arranged and categorized according to their types. User can choose any specific option with click and every related information will be shown on screen. We use navigation drawer layout to navigate all activity. User don't need to any account to access this . User directly get home page and user chose his option easily. User also see search bar in home page for searching his destination.

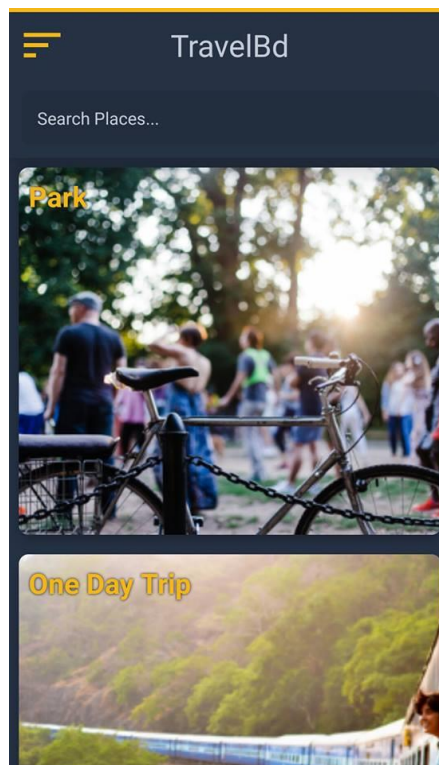


Figure 4.1.2: Home content

4.2 Back-end Design Specification

Back end design is the ultimate destination of this application. Interaction design is a must for an application to perform swiftly. We tried to do our best to make this application easy as much as possible. We have used icons to create an easier application for the users. Many icons are used by us to select desired information. So an illiterate person can also operate this service with little or without any help. This makes the service easier to use. [8]

4.3 Interaction Design and UX

We tried to make this application simple, minimal and easy to use for all user to use in daily life. The mechanism of these application is also simple to understand and improve in future. We have implemented animation, relative icons [10], proper descriptions, user friendly design for better user experience.

4.4 Implementation Requirements

Technology used to develop this system are as follows:

- Programming/Scripting Languages: JAVA, XML
- Database: Firebase
- Storage: Firebase
- Authentication: Firebase

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

We are using online real-time firebase database [11] server for data storage. User cannot entry his/her own data. Only admin can entry user's data. These data will be stored in database. All data is stored by its category

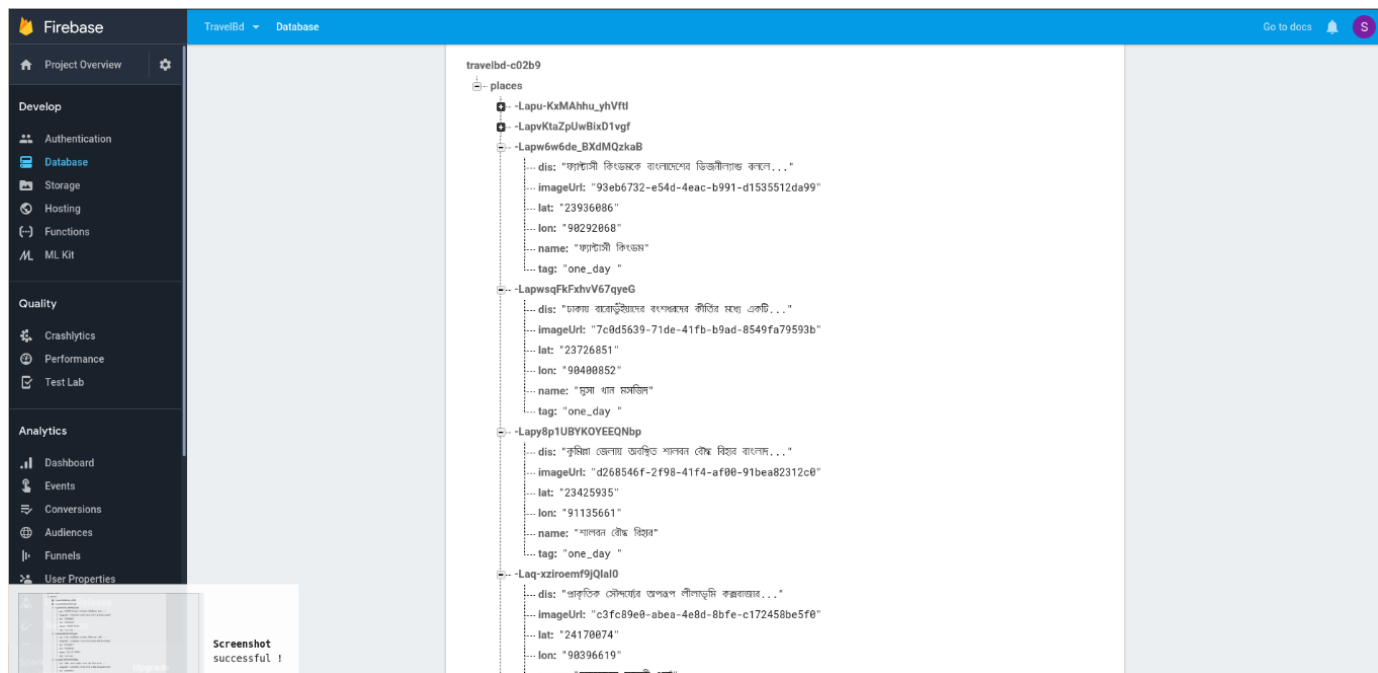


Figure 5.1: Implementation of Database

5.2 Implementation of Front-end Design

We tried to keep our front end design simple and easy to understand. So that a user can easily understand and do his work. We use navigation layout, scroll view layout, search bar and many more feature to keep an interactive design. We set nice and relative images and icons to help user. We set home, hotel, tour blog, fb tour group, help line.

In front page we keep search places. User directly open app and he/she see all categories in app.

They are easily can find any place and see his/her destination. The front page we give park, one day trip, resort, long tour and google map. For this app user easily use this app and understand everything.

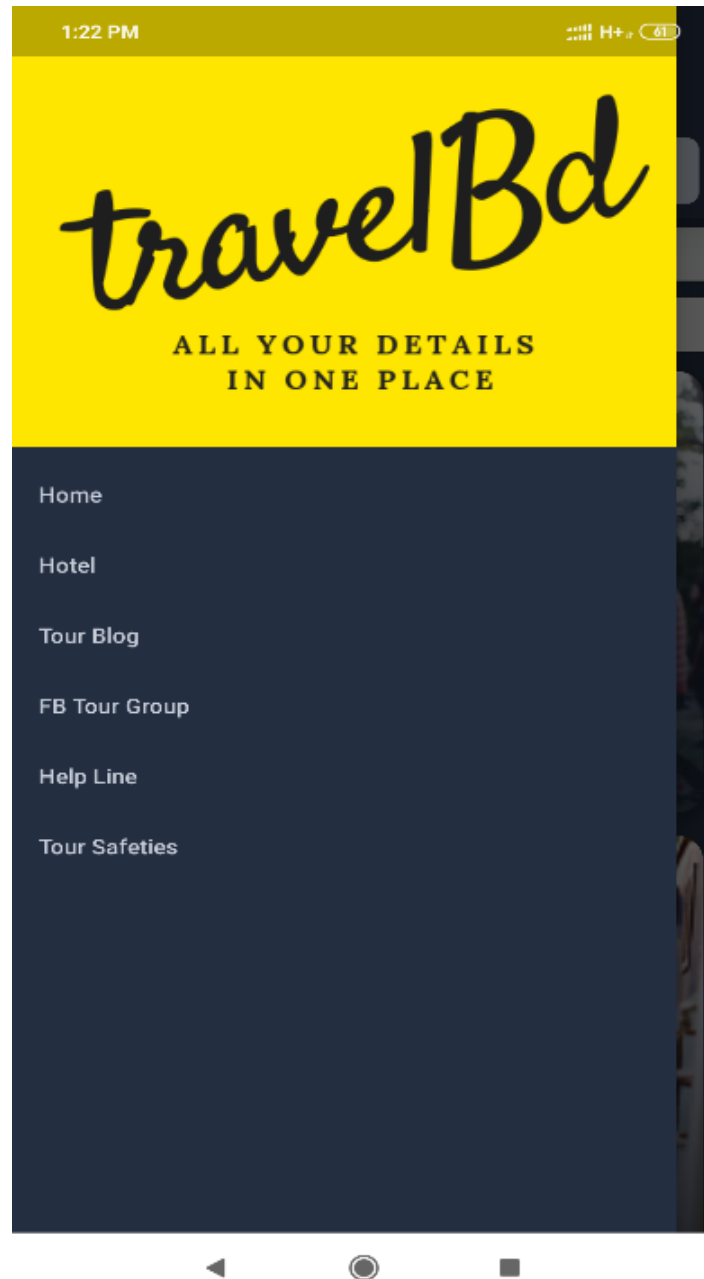


Figure 5.2: Front end design

5.3 Implementation of Interactions

5.3.1 Search Bar

User can search there suitable place as user need. when user search result will show and get this.



Fig 5.3.1: Search Bar

5.3.2 Hotel Information

There have a category of different types of hotel .So that user can easily find out his/her best hotel. Decrease time and cost.

5.3.3 Tour Blog and Tour Facebook Group

We added some popular tour blog and Facebook tour group .which will help user to visit any place. These Facebook group help people , give information ,share their experience and advice .If anyone have no travel group or can't find travel partner .they can use those group or blog to find out.

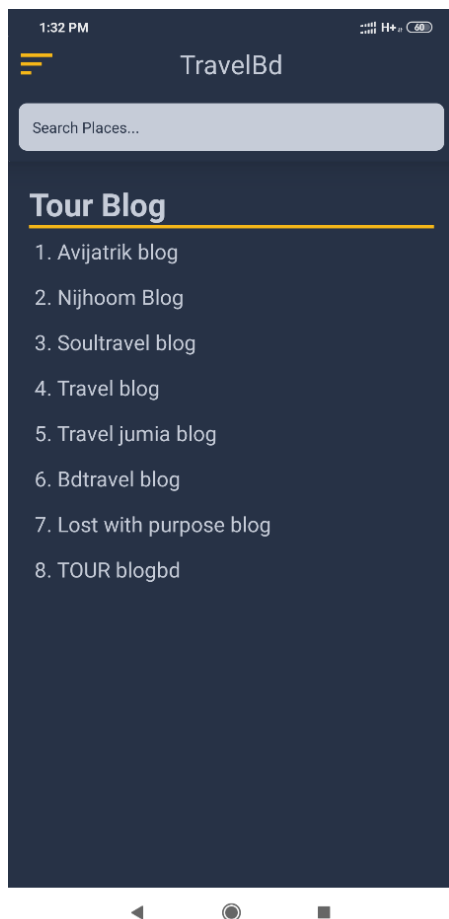


Fig 5.3.3(a): Tour Blog

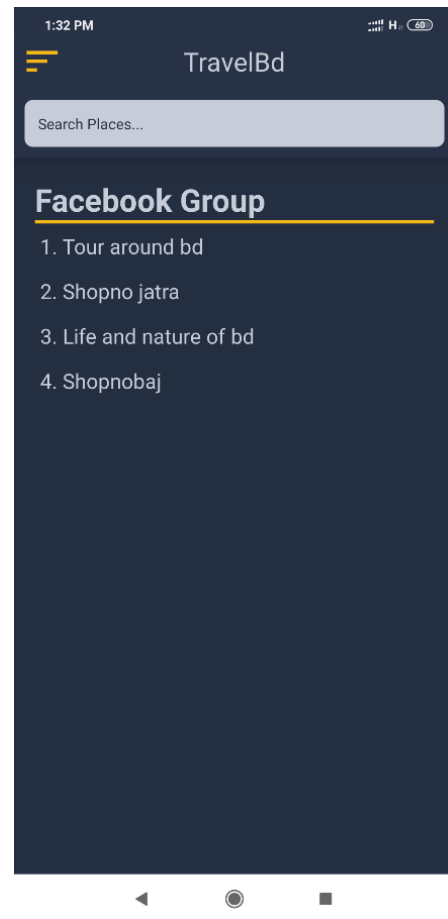


Fig 5.3.3 (b): Facebook Group

5.4 Testing Implementation

Implementation testing is a procedure to check the execution of technological approaches. On one hand it executes the approaches to check if it works in real life or not, on other hand it shows the progress and lacking of the application. It aids in promoting the quality and interoperability of execution by solving the lacking.

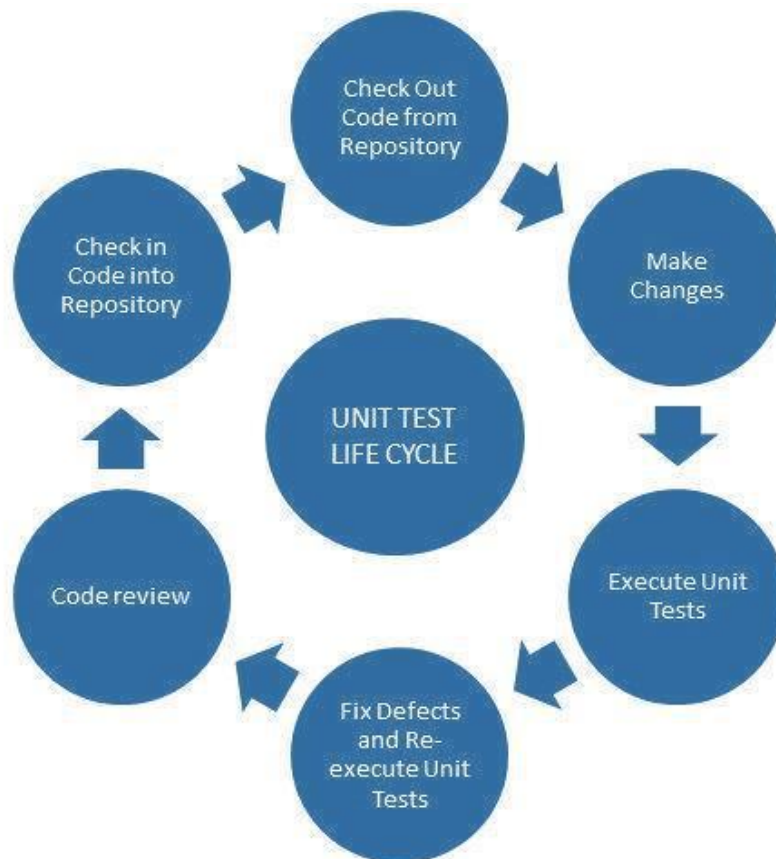


Figure 5.4: Unit testing life cycle [12]

CHAPTER 6

CONCLUSION AND FUTURE SCOPES

6.1: Discussion and conclusion

We believe that our application will full fill our user demands. We build this application to think our tour lover generation .we know that in our country maximum peoples are interested about Tourist places. Every vacation season we realize that .when our tourist spot are full busy with tourist. We give many features like map direction, hotel information, tourist blog, Facebook blog, help line system and also given tour safety information .we build our application with a unique features to think our user demands and our application have a smart interface .which is easily controllable .User can see picture of their suitable places .which will attract there to go those place. I believe that our application will be the best application in our country and tour lover will accept our application.

6.2: Future Scope

We will develop this application in future .We will add some features. We will add English. Language option so that foreign people can use this application. They can easily use this application .we will also add an option in home page .low budget tour and expensive budget tour .that will help user to choice their tour in budget .we also have a business plan .we will add our personal business group .it will help user to build up a relation with developer. And we will understand what will need user.so that we will update this application.

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