EVENTZEN AN ANDROID APPLICATION FOR EVENT MANAGEMENT

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

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APPROVAL

This Project titled "**EventZen An Android Application for Event Management**", submitted by "Suman Mandol (ID: 182-15-11779)" and "Sarmistha Halder (ID: 181-15-11023)to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 29th January,2023.

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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Mr. Shah Md Tanvir Siddiquee, Assistant Professor, 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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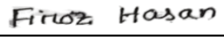

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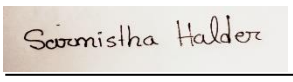

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Ultimately, we favour our parents for supporting and patients for all the steps. We also must accept their compassion.

ABSTRACT

This project title is “EventZen An Android Application for Event Management”. We wants to build an mobile application of android for the user for the arrange of a event easily by providing with upcoming and previous event details, event guide, hotel and resort information, hotel and resort booking, renting cars, collaborate with various groups. Consumer can show all activities through this application any time. User will be able to see Event details, upcoming events, Car details, trip booking, Booking details etc using this application. Our main goal is to build an user friendly application. Consumer can easily use that application except any doubt. A man who have an android smartphone he can easily avail the benefit of this application by logging in with his mobile number or his email address or their NID. Customer have to give their information correctly. In case an admin or agent view any work of a customer it break the conditions and terms then the admin can incapacitate the customer. For Monitoring that application properly several related specification also build for agent and customers. Admin can maintain all activities in a separate panel with a clean ui. Each one has a different band specific role to rule this app. We also have a purpose to enhanced the features and facilities more.

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CHAPTER 1

Introduction

1.1 Introduction

This is the age of modern Science and our technology becomes available for everyone. Nowadays smartphone is available for almost every person. This provides a variety of functions and introduces us with the modern technology. It has become the daily driver of our life. We cannot think of our daily life without the help of smart phone. A smartphone consist of verity of applications. There are several travel based applications found in play store and website. But there is no such application through which user feel comfortable in event booking. With the aim of assisting trip booking with developed this application. This application helps the user to arrange a event easily by providing with upcoming and previous event details, tour guide, hotel and resort information, hotel and resort booking, renting cars, collaborate with various groups. That kind of mobile application used in particular use in an android smartphone or tablet or any other that supported android operating system. Our application will be available in play store and user can access this application by installing and with registration. Only that people who are sign up on our application they easily use all the functions of this app. This applications available both in English and Bangla language so that could be understandable to all users.

1.2 Motivation

Modern science and technologies are available in our country. By this we can find different types of material due to our daily necessaries at various platform. These service can be done now through by smartphones. That's the reason of the avail of these whenever we want. By using this application, user can easily know all the activities of tour event at any specific time or day.

The plan goal of our mobile app that may use in android mobile phone to assist user in choosing a best event for them with several offer very comfortably. A customer or a user will be able to see all the necessary points needed to arrange an event.

1.3 Objective

- To established & develop an android operating system-based event management application.
- Building up a flexible platform.
- Established cloud based system.

1.4 Expected Outcome

- Will be a faithful platform to the consumer.
- User or customer will be able to see upcoming and previous event details, renting cars, collaborate with many groups.
- Consumer can show all activities through this application any time and from anywhere.

CHAPTER 2

BACKGROUND

2.1 Introduction

Our android application will show all event related activities. Now-a-days android mobile application is more user friendly and reliable. Everyone wants try to save their time or their money and wants to make their life easier and comfortable. Everyone wants a stable and responsive application. We have many similar application on online but these applications are not build properly and not updated regularly with no user update services as well. We wants to build an application that is unique and well maintained application with a high user service help from other ones.

2.2 Related Works

"EventZen" application is mainly used by traveler to know their necessary activities. There are some applications like EventZen. [2]"Event Planner" that provides functions such as list of popular places, vlogs on event, Event plans etc. It offers descriptions of Bangladesh and international travel destinations, also including information on how to go, where to go, where to stay, where to eat, cost related ideas, suggestions and other details. It also includes travel documentaries, hotel and resort reviews, event plans, event stories, event news and all of the fun information related to travel.

"Tripadvisor"[5] guidance from millions of travelers on hotels, tours, activities, restaurant. This app recommended places nearby and view them on a map. This app provides a planning tool, events, to save and organize traveler recommended places. They have build their app to make a better travel.

"GoZayaan"[6] make travel bookings easier. Let your Travel booking be simple. By this app you can make your travels more flexible. In this app you have multiple payment option .This is a great opportunity of this app. You don't have to go through the hassle of submitting any paper or printing.

“Jatri” is the travel partner/friend that you never knew you needed. Jatri[3] offers an affordable reliable and comfortable solution to travel from point A to point B. Jatri is the go to app for a secure and comfortable journey. You can plan your day in advance by selecting your time of travel on the app and adding your pick up and drop off. You can enjoy a reliable, hassle free and comfortable ride with Jatri.

“Tour Today BD” this application is for tourist places guide and hotels of Bangladesh. It is one of the tour and travel directory of Bangladesh. You can store your favorite or desire places information in your local storage. It will help in tribal and rural area.[7]

“Vromoon”[8] Pioneer online travel agency platform in Bangladesh. They provide air ticket ,hotel booking, package tours. They provide travel related services you need.

2.3 Difficulties

Application requirements: The main problem that we faced is the fulfill the user interface of our application. By this our users can frequently use our application without any kind of lags. We faced some trouble when we build the application. Sometimes we have some invisible error that to too hard to find out and to correct this. Sometimes it takes few hours.

Weak Communication: For the development of that android project we are two members. Sometimes its not possible to get together and find out or solve the issues of the project. Active communication is main to make this project successful.

CHAPTER 3

REQUIREMENT PROPERTIES

3.1 Process Model

We all time followed a model for our project with a proper planning and details. This figure of Data flow is a visual representation for tracking the data with a system. The flow of data by diagrams described in Logical data flow diagram or the information by a model to do various process with a commercial business. So, we linked up our data flow diagram and its process with our system processes and business activities. The Data Flow Diagram is given bellow-

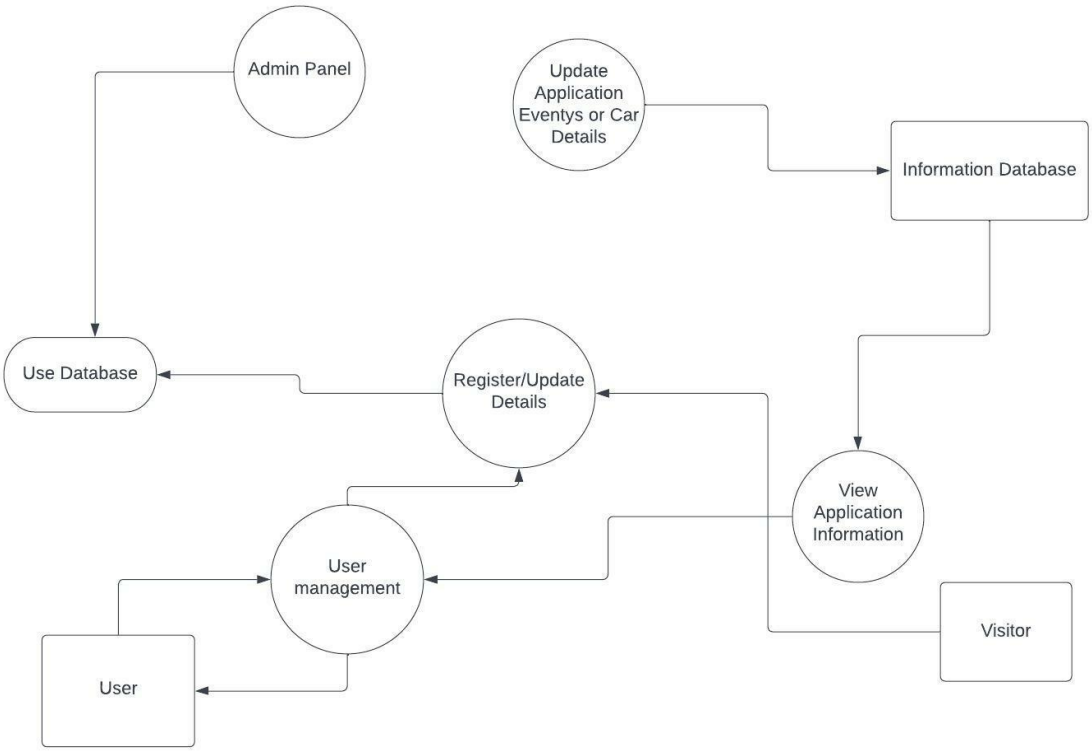

Figure 3.1: Data Flow Diagram

3.2 Necessary Collections and Analysis

Primary agreement of an app development is the necessary collection of data and required analysis. We have two types of requirement for our application development. Functional requirement and nonfunctional requirement. Those which completed by software these is called Functional. And Nonfunctional defines figure of a app that may be help out to build up the narrative progress process.

Functional Requirement: We have many functional requirements. We used authentic login system, show user data, authentic Agent login with Data transfer, user can view events, available car for rent, hire or book trip events or car, Hire Car by Fixing date etc.

Non-Functional Requirement: Non-functional requirements actually depends how was your application user interface used by the user. User Interface must fluent and smooth and attractive.

3.3 Logical Data Model

Entity relationship Diagram or ERD which explain relationship of stored entity sets of database. Collection of similar entities is called Entity set. For Define its properties it have some attributes. ER Diagram presented as entity relationship diagram. The piece of data a concept or an object which is stored is called entity.

3.4 Design Requirements

Every android user expects a look of an application in a way that's consistent with that platform. We should follow material design guidelines for visual navigation patterns. We searched some points for design requirements these are given here:

Efficiency: Installing the app with smoother and lag free on any android supported device is very important. We tried our best to make sure about application performance and smoothness with a lag free performance.

User-Comfortable: We tried to make our application comfortable to our users.So,every people can easily access all the features fluently. Our application UI is very attractive and we tried to play a major role on design.

Fit On Multiple devices: Our application is compatible with any android smartphone or tablet with min SDK level 23.

Some Extra Features:

• We have 3 types of User like Normal User Admin and Agent.
• Agent can organize, edit delete or add any event or manage these.
• All Admin and Users details are controlled by Admin.
• Regular user can only get access register and update their account.

CHAPTER 4

UI DESIGN SPECIFICATIONS

4.1 Front End Design

Graphical user interface representation of a app is called front end design. It builds up of two major part. One is XML is used for structure and design of an UI and java class for logical operations on interface. In XML files we used many different types of labels and many types of layouts. As like card view recycler view scroll view ,radio button, item view, nested scroll view, edit text, layout, text view, image view and many gif animation and fonts. We also used other XML file for button design and shape to make our user interface attractive. That's why it becomes very easier to procced task for the user. It turned out simple but attractive.

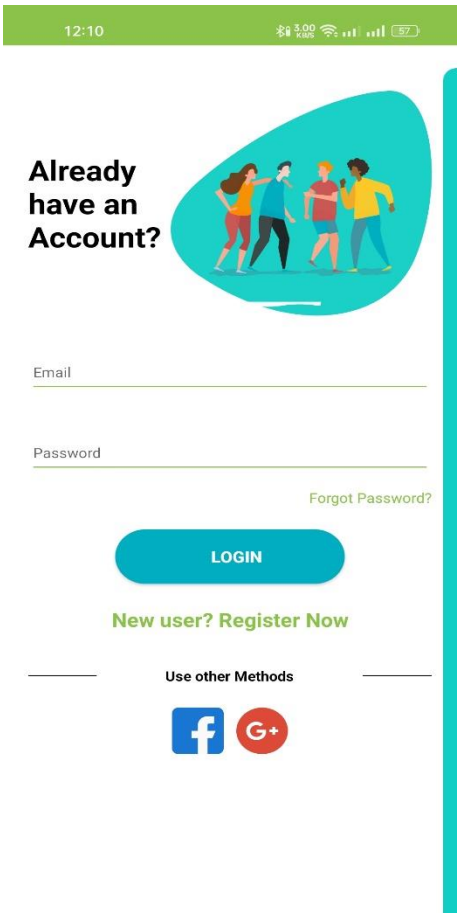

Figure 4.1:- Login Page

Figure 4.2:- Registration Page

Figure 4.1:-This figure displays customer or user login ui. When the user wants to login on their account that page will show shown on display.

Figure 4.2 :- This figure displays to the user their register on application. If a user try to login on his account this page will be shown on device display. When a new user, he needs to register first for enter the application. Here user have a valid Email address, phone number, a password and NID number. Given details have to be correct information.

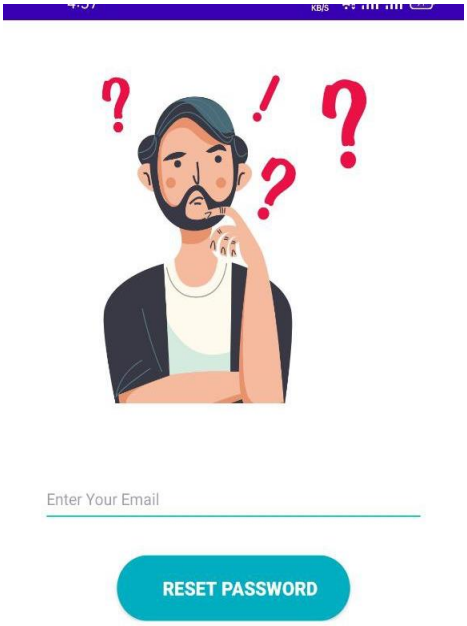

Figure 4.3:- Password reset page

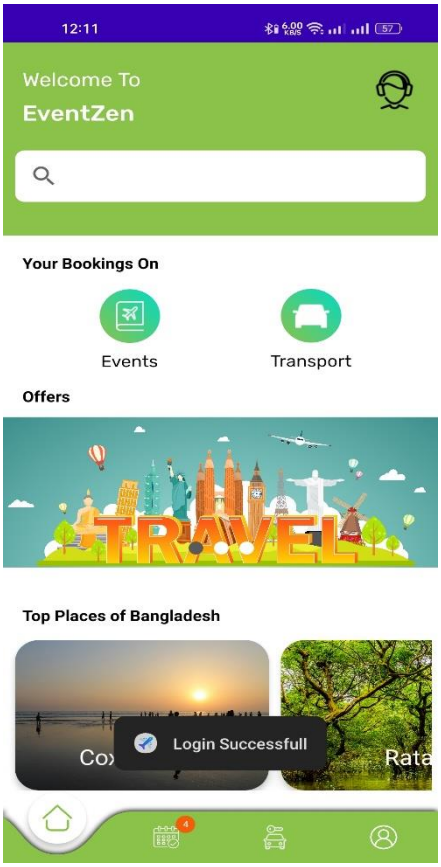

Figure 4.4:-Home Page

Figure 4.3 :-This page assist in resetting password if the user forget his\her password.

Figure 4.4:- This figure resembles the home page. A user can search for their desired places, rent cars, book trips, check trip offer, they can see best tourist spots.

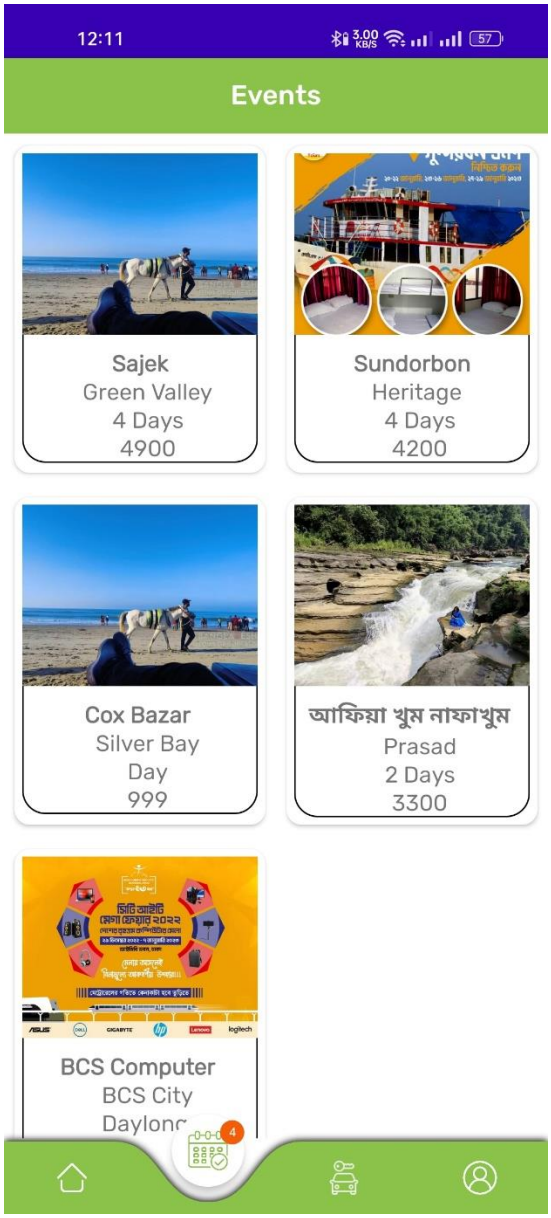

Figure 4.5:-Upcoming Events

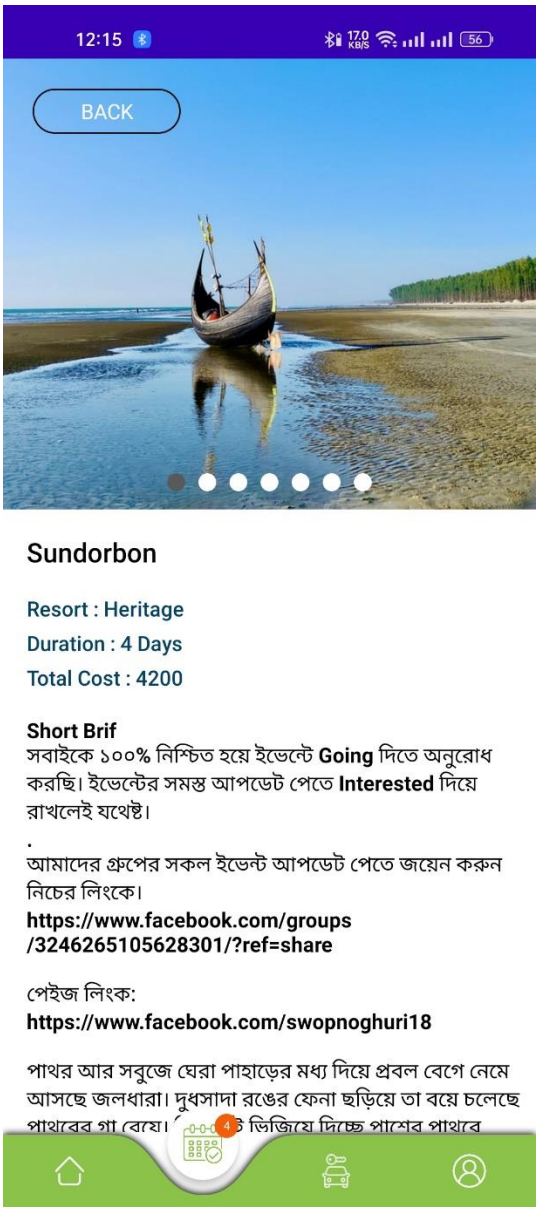

Figure 4.6:-Event Details

Figure 4.5:- This page represents the upcoming events .User can see the details of an upcoming events such as places ,cost ,duration etc.

Figure 4.6:-This page represent events details such as places ,cost ,duration etc. .User can know everything about an events.

Figure 4.7: -Trip Booking

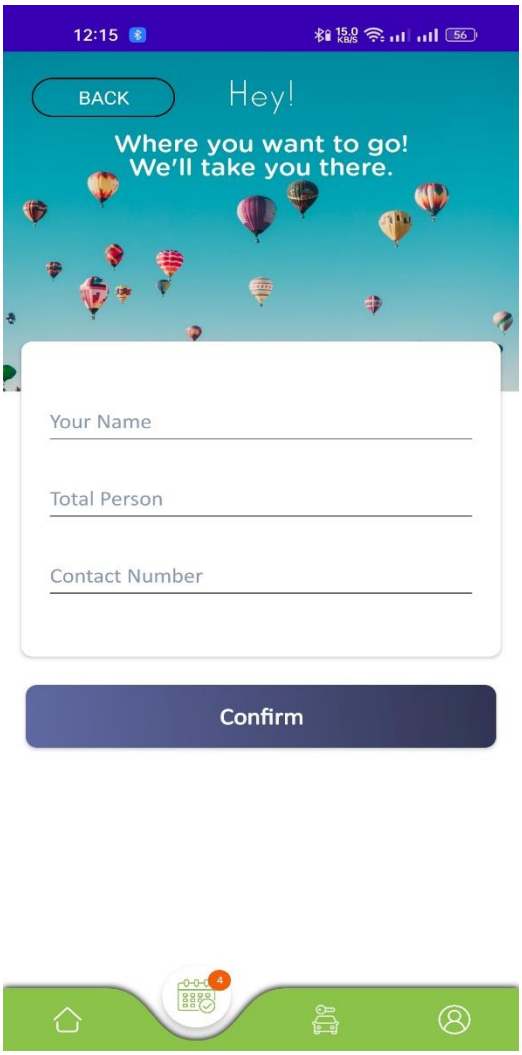

Figure 4.8: -Trip Confirmation

Figure 4.7:-This figure shows best tourist spots .User can choose their favorite place from here and book.

Figure 4.8: -This figure represents confirmation interface of trip booking. User has to fill the given fields to confirm their trip such as name, address, contact number.

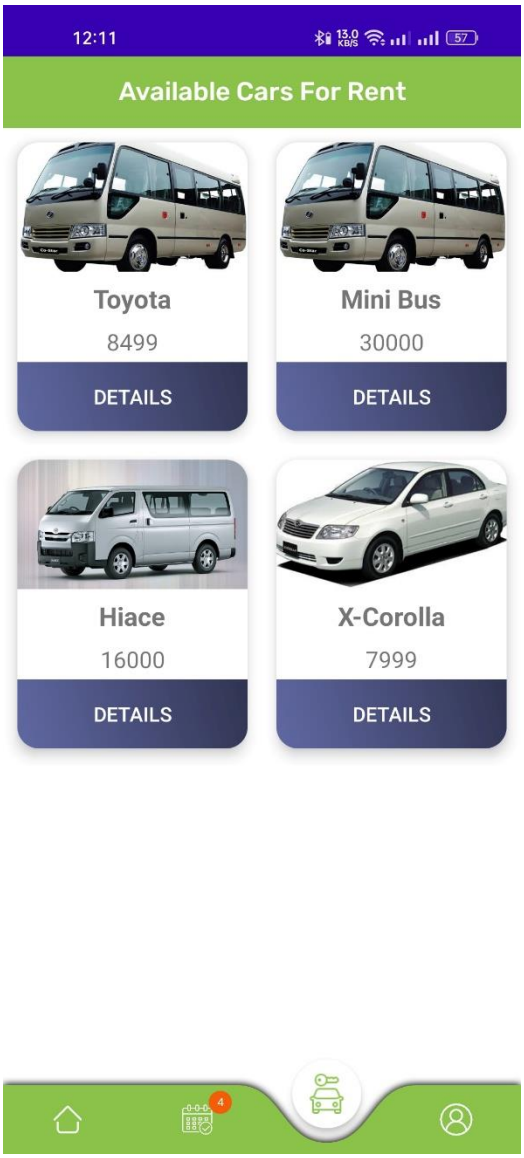

Figure 4.9:-Car Details Page

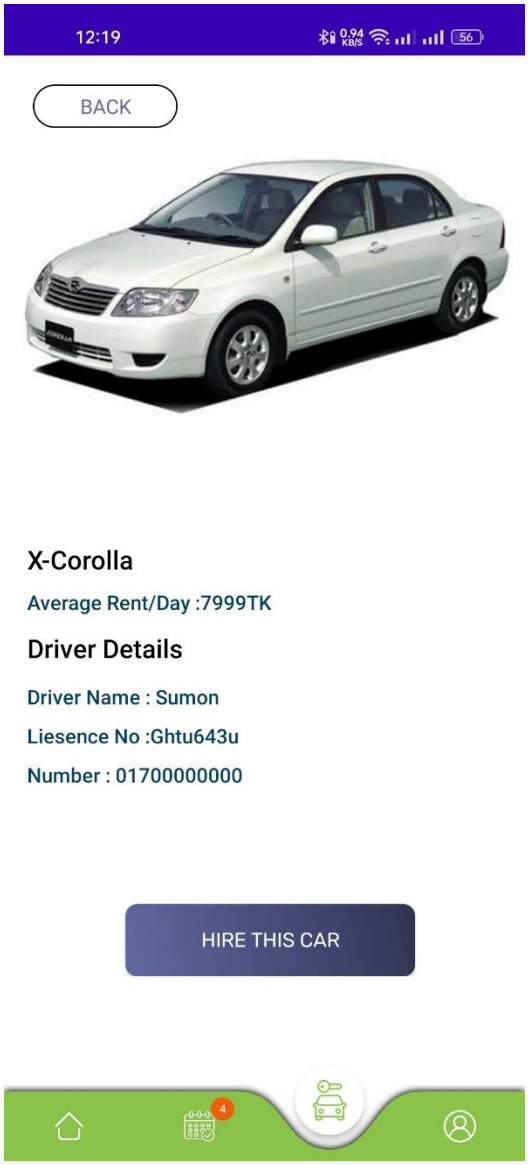

Figure 4.10:-Car Hire and Confirm Page

Figure 4.9: -This page represents the available cars for rent. user can see car details such as car model, price etc.

Figure 4.10: -After choosing car from the previous page users have to confirm renting car from this page.

Figure 4.11: -Booking Details

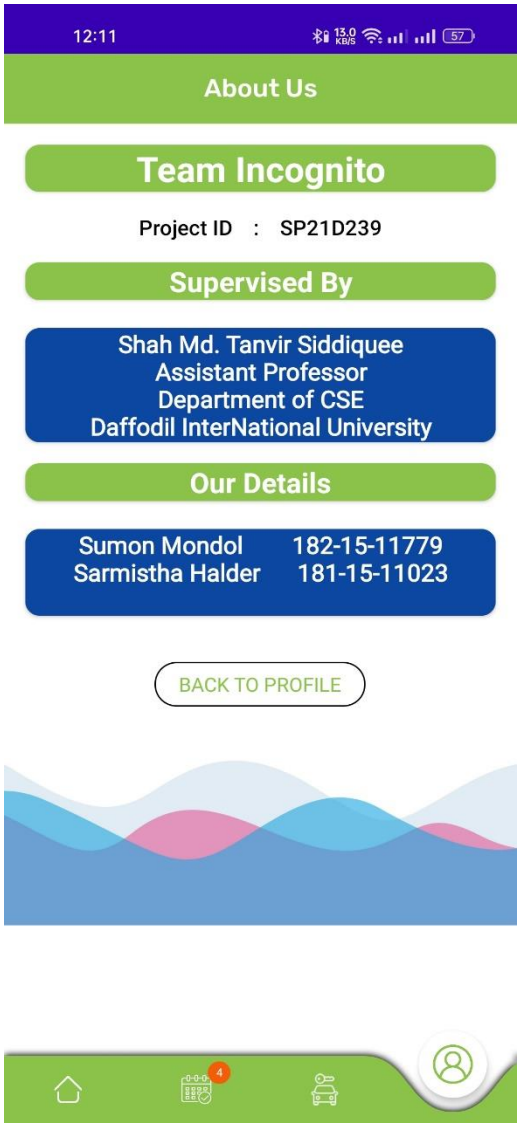

Figure 4.12: -Team Profile

Figure 4.11: - In this page user can check all the bookings and can check the booking Status.

Figure 4.12: - This page consists of necessary information of a user such as email, phone number, NID number. Both user and admin can see this information.

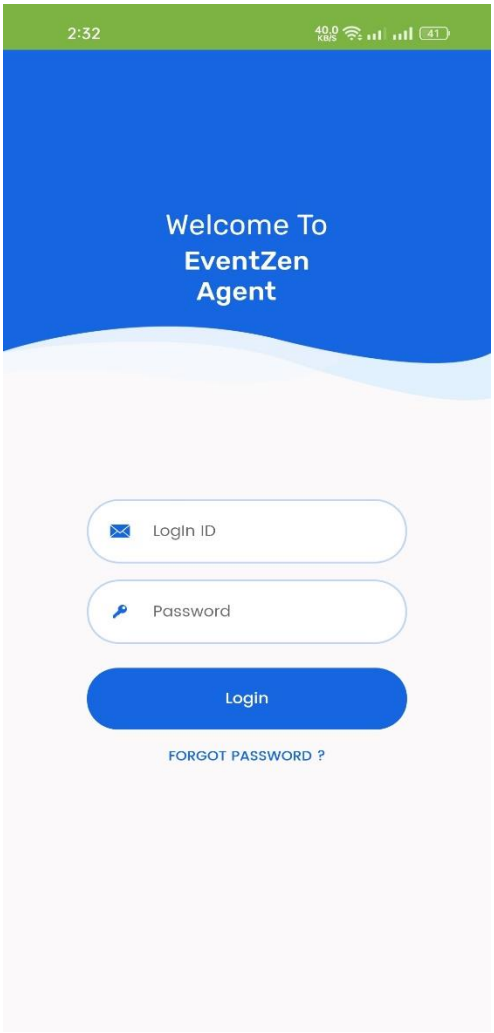

Figure 4.13 :- Login for Admin

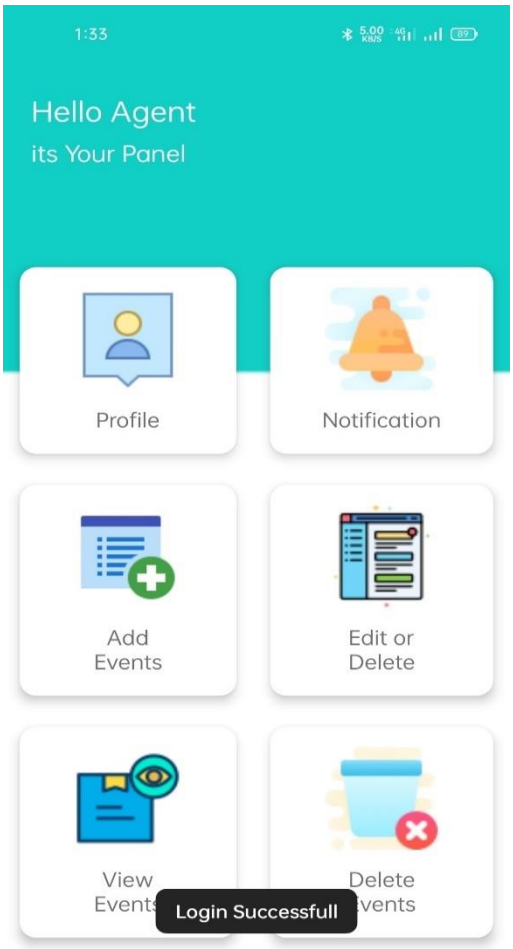

Figure 4.14:- Agent Home

Figure 4.13: - This page resembles agents login interface. Agents can access this page with their preferred Login Id and password. This page is restricted for users.

Figure 4.14: - This panel is restricted for the user. Only agents can access this panel. This page consists of two agent's car agent and travel agent. Agents can maintain their events or cars details or can maintain booking. Car agent maintain all the information of cars. Travel agent create different types of events.

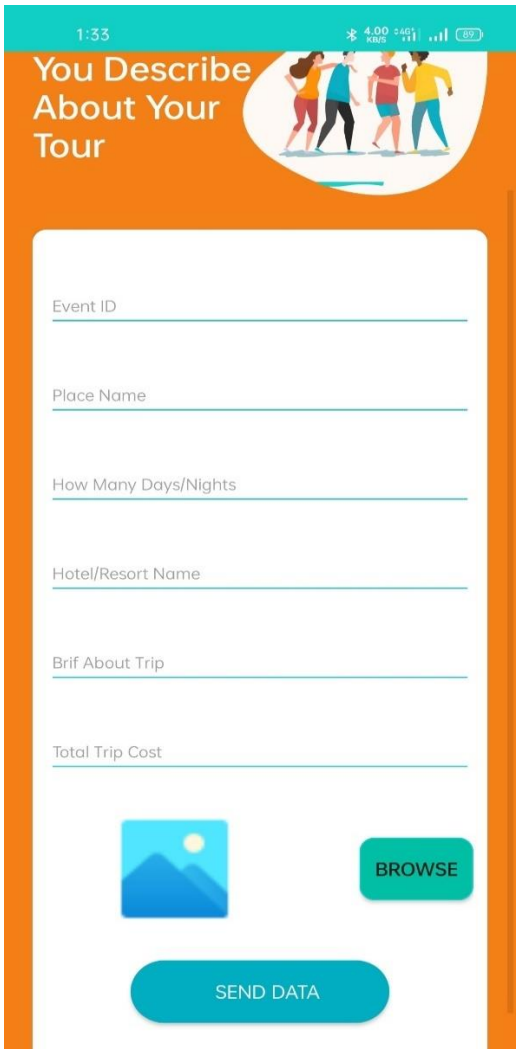

Figure 4.15: - Tour Data Page

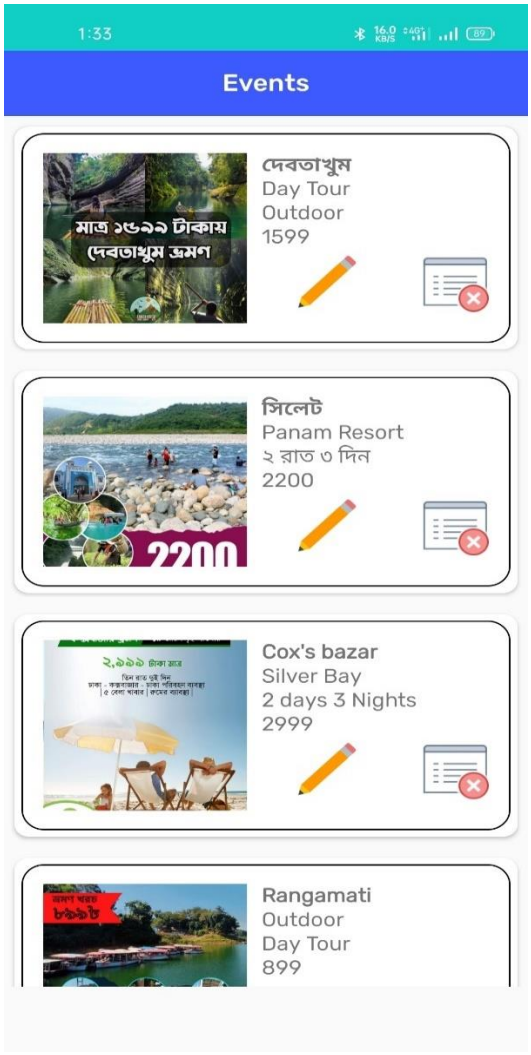

Figure 4.16: - Agent Events Page

Figure 4.15: - This page resembles Tour data information. This page can be accessed by Tour agents. They have to enter Event ID, Event Place, Resort name, Event Duration, Cost of events etc. User can see the given information in their events page provided by the agents.

Figure 4.16: - Only travel agent can access this page. In this page travel agent can update or delete an event with several information such as places name, duration of event, hotel and resort, brief about trip and total cost of trip.

4.2 Back-End Operations

As we developed an mobile android application , so we must have to do some back-end operation. Firebase database is the main part from these cause most of all tasks are processed based on database. In our application we used Firebase Database.vFirebase Realtime Database is a cloud-hosted NoSQL database that lets you store and sync data between your users in Realtime. Some back-end operations of our application are given below:

- Realtime syncing for JSON Data.
- Collaborate across devices with ease.
- Build a serverless app.
- Optimized for offline use.
- Strong User Based security.
- Part of the Firebase Platform.

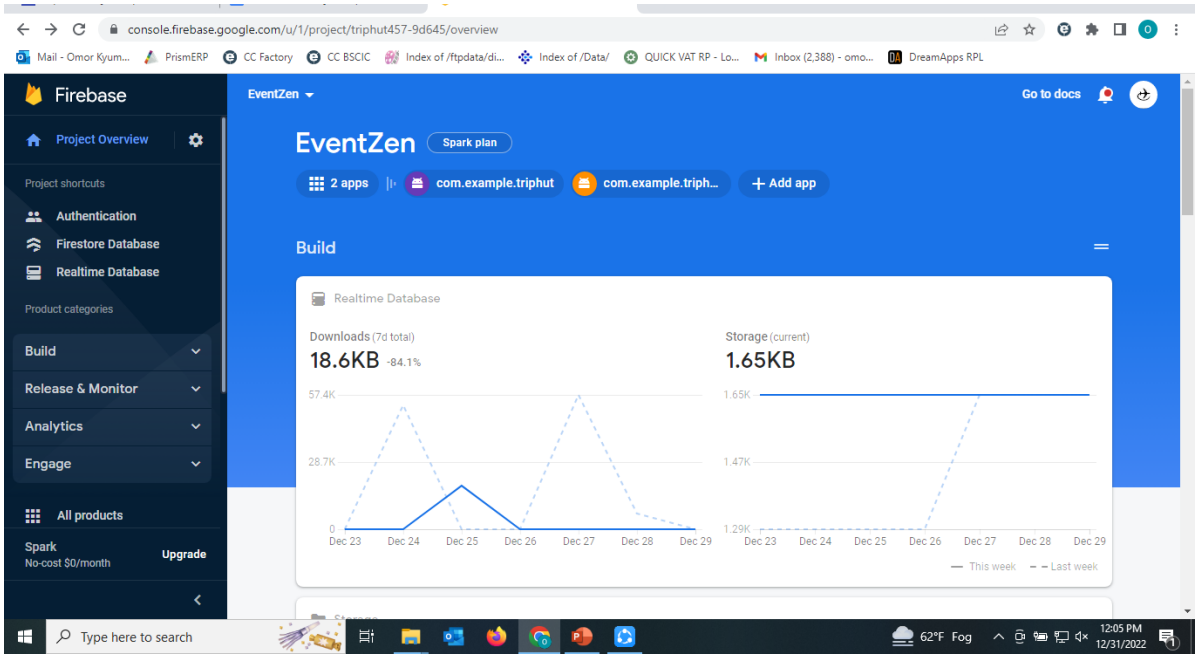

Figure 4.19: Firebase Profile

Figure 4.19: Our android application is connected on Google Firebase Database.

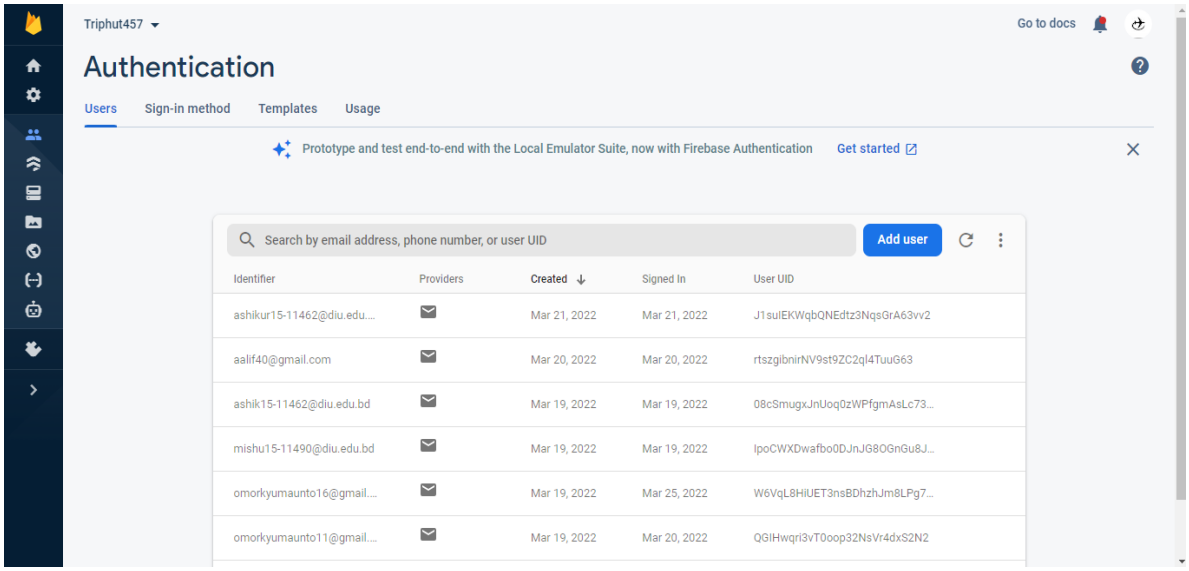

Figure 4.20: User List on Firebase

Figure 4.20: We used Firebase Authentication for user login. Every user have a separate UID. So we can easily track their activities and history.

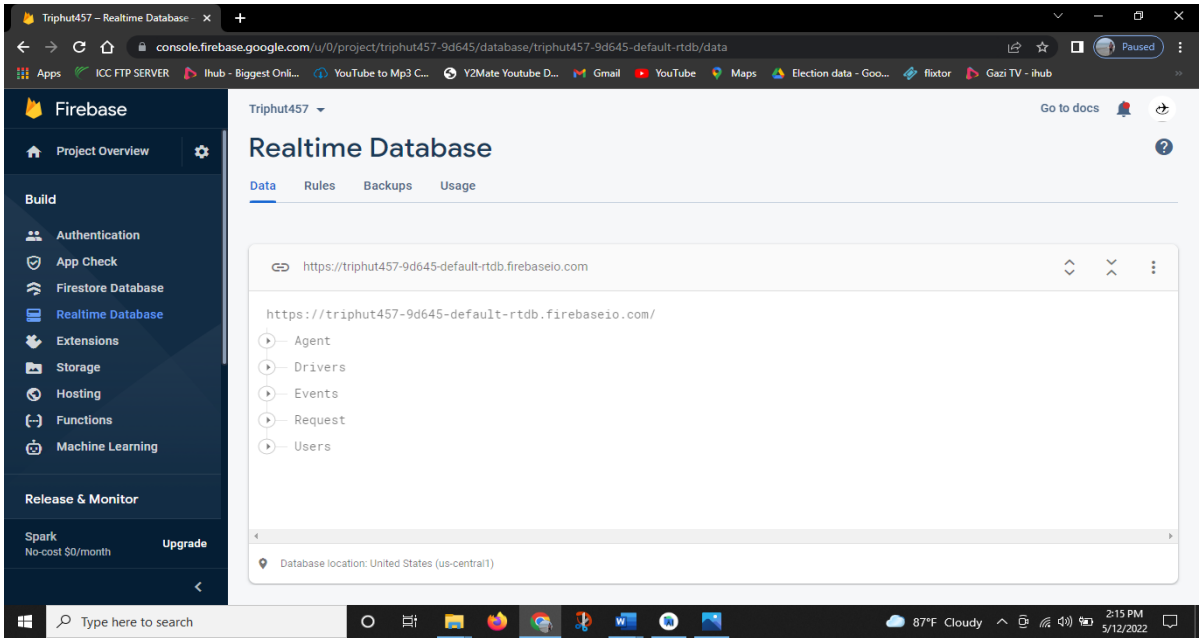

Figure 4.21: Every Data details

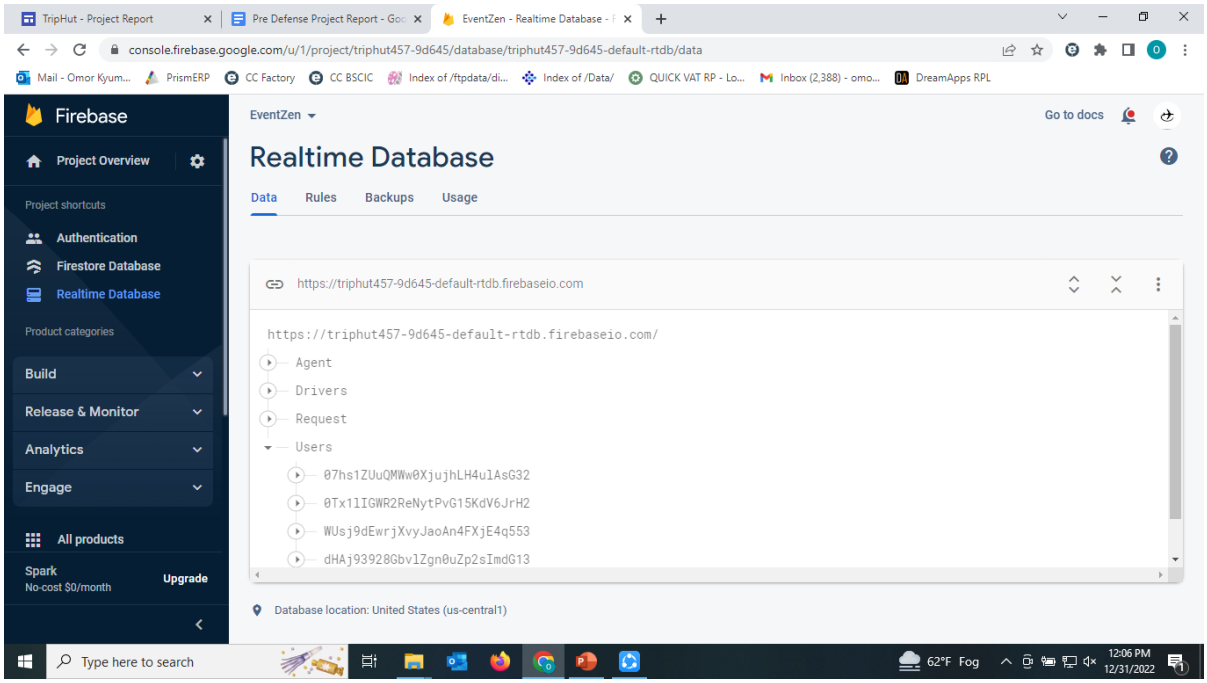

Figure 4.22: Booking Details by Specific User Data

Figure 4.23:Every Events details

Figure 4.24: Proper Details of User

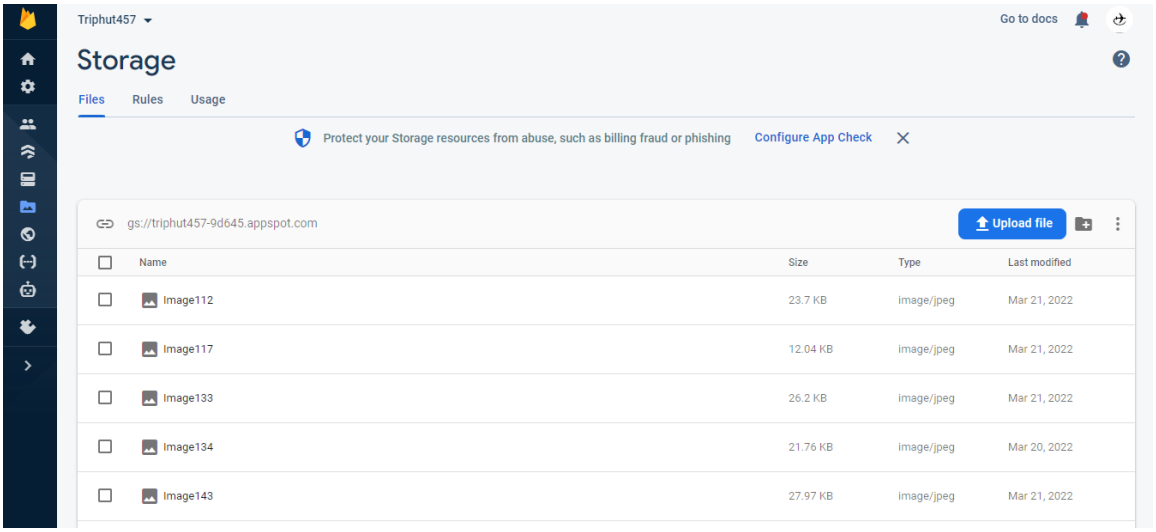

Figure 4.25: Image data of every User , Events and Cars.

4.3 Interactive Design

Nowadays everyone wants an interactive and styles design for their smartphones and tablets. Interactive design helps to build the application much user friendly and interesting for the user. Interactive design is the main and solid way that observe the interaction between a system and to its user. On other hand users experience focuses on overall visual experience on interactive design between user and the application.

4.4 Requirement Implementation

For implementation of our project, we need to use android studio for the design and to develop the project. On other hands for back-end we need a web browser and a Gmail account. For the testing purposes we needed JDK, SDK and NDK. Again we need a physical android device for run and for the test of app from the computer. Adobe Illustrator, photoshop is used for prepare various types of logo and background images. Another one is need a strong internet connection to sync and update the gradle file of android studio.

CHAPTER 5

TESTING AND IMPLEMENTATION

5.1 Implementation on Database

Our primary and final motive is to build up a database and tables for presenting the data in Firebase. That will build a connection on our application to the Firebase database. We build a data structure on firebase. Sometimes we need to up to date many of our data using the storage of the data which is stored in storage. We uploaded queries for enrolled the information from the Firebase. That's the implementation process of our firebase database. We added Realtime database SDK in our app. Our team have to Configure Realtime database rules.

We saved information to the real-time storage. And the Firebase authentication system to make a totally new identity for the collection of all consumer usage based. And our team also used Realtime database for store the data of events, driver data and car related data.

We used almost all the demanding options of the firebase database with the application by the programming java classes, dependencies and various resources of the libraries. For the establishment of our application with the co relation of the database presenting in methods for upload data for register users via Firebase.

5.2 Implementation of Front End Design

Front end design is related with Java classes , XML files. The XML used for UI design. In XML file we added various items like various layouts, Buttons, various view, various shape for designing the application. Again all items are related with class by calling them. Java classes used to play various logical operations.

5.3 Interactions Implementation

For the analyze our idea, we have got feedback from our classmates and supervisors and also from some of our faculty member about the application. We had shared our idea and goals. Receiving their opinions and suggestions. After that we discussed with each other for favorable UI. And we prepared our application logos and app buttons with efficient information and for that the design is so attractive. All we prepared more user friendly and a attractive application.

5.4 Implementation Testing

Android has various types of testing. They are Instrumented tests, unit tests, local unit tests, system tests, Integration tests. When we connect with local computer with the android studio installed and connected with firebase. We used Java on pc so that it works very fast because in java didn't be an emulator is need to done this.

System test tests the full system. These tests used for the check of code test. A unit testing is very important because developers sometimes tried for save the time minimum Unit test and cost is higher as a result of these mythical reason unit test fault fixing when a system test done, even beta testing and integration testing on the application is built. If an initial unit testing is completed at a stage, it will save time and cost at the end.

5.5 Testing Result and Report

Basically, system tested for the accuracy of an application. The test the integral part of the application. Finally, application interface with other software or hardware. Our system is the series of the system testing output.

- ✓ Login System
- ✓ Registration System
- ✓ Show Agent Panel
- ✓ View Agent Login Page
- ✓ Show Events
- ✓ Show Events Details
- ✓ Booking on the Events.
- ✓ Show Available Cars For rent
- ✓ Driver and car Details
- ✓ Booking Car in date by User
- ✓ View Profile

CHAPTER 6

FUTURE PLAN AND CONCLUSION

6.1 Discussion and Conclusion

The current mobile world is largely dependent on Android. In this context ,we try our best to make our work accessible to all while maintaining the traditional style. In this busy mechanical life, leisure is an essential part of every human being's life. With this application we want to reach every mobile phone easily and in a short time and with ease, to give the travelers the right place and opportunity.

6.2 Opportunities for development

Travel sector is a huge opportunity for development. In the current Situation the android application-based on travel is updating. We have some plan for our application these are given here:

- We will use multiple languages like Bengali and English for the user.
- Customer can see and book on events or cars and can make Payment.
- Proper virtual assistant for the users.

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