

Hrry:
**” WE ARE
WAITING”**



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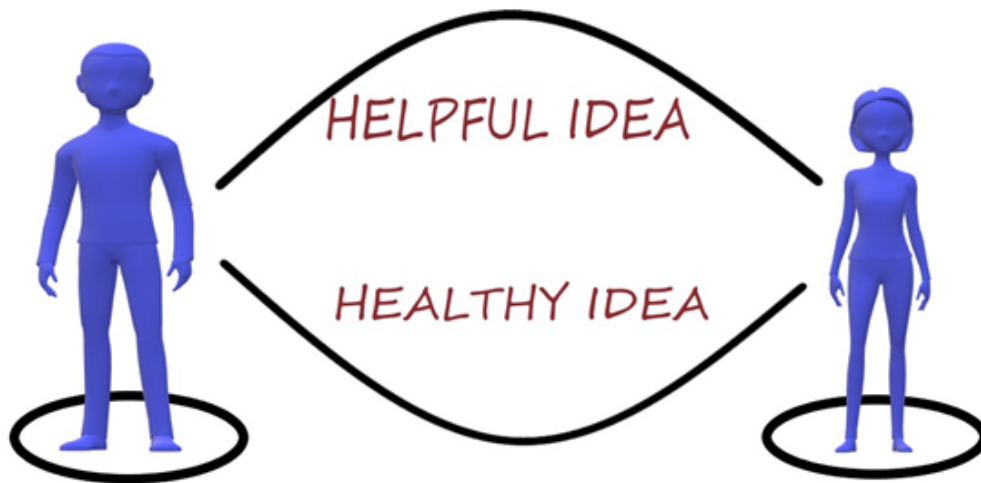
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INTRODUCTION

OVERVIEW AND PURPOSE

This project was chosen by us by looking to the problem related to transport in this pandemic. People can't move out to their work by risking their lives because of the disease that is spread everywhere. Due to which people are not able to earn as they can't go out from their house and are not able to even feed their family. Also looking at the economy slowdown of the transport sector of the state, the condition is not good at all.

So to deal with all these problems we came up with an idea of building an application which will help in managing the transport sector in a safe way. By using this app people can book their tickets to travel in public buses whenever they want and that too online. Building an app which will provide various facilities to the passengers like live tracking , sanitization information of the bus in which they want to travel, linking every profile with Aarogya Setu app to keep the transparency of the travel history of the passengers with the government, emergency service, making transaction cashless to avoid cash exchange between the passengers and the conductor of the bus, special security to the females travelling alone, building chat bots for better assistance, making online booking to avoid crowd on the bus stop. All these features are build keeping in mind the importance of social distancing and sanitizing. This will also help in reviving the transport sector of the state. A helpful idea, a healthy idea for the citizen of the state and also a good idea helping the transport sector more safely than now.



LITERATURE SURVEY

- **Existing Problem**

Intelligent Post-Lockdown Management System for Public Transportation.

- **Proposed Solution**

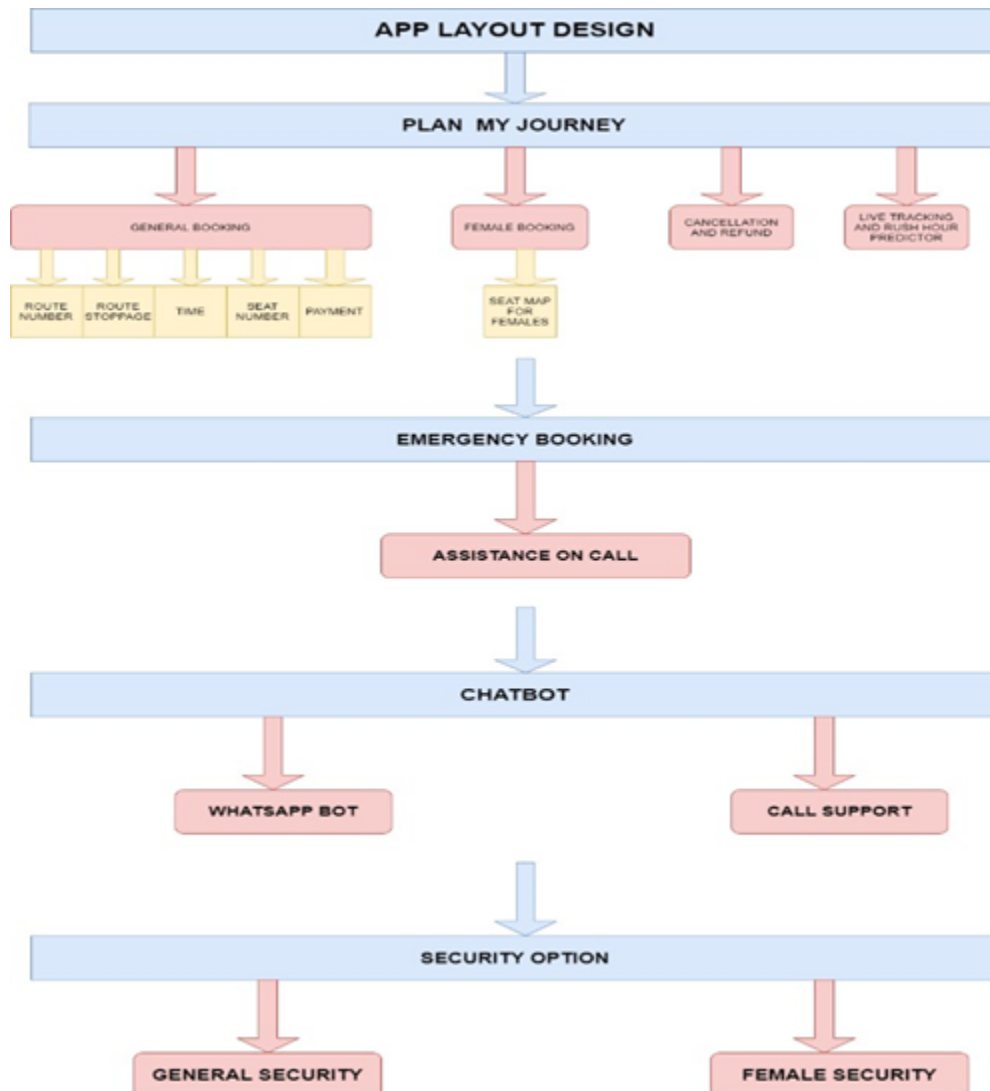
The proposed solution for this problem statement is our application through which anyone can book a ticket using application instead of standing in long queues and violating social-distancing. Also, the payment method is made cashless so that there is no question of cash transaction which would again reduce the risk of coming in contact with the Covid positive person. The customers using this application have to link their Aarogya Setu account to this so that we can keep a track of the person whether he/she has any symptoms or is positive for Covid-19. Also, the person travelling have to follow the guidelines presented by our app i.e. wearing mask and maintaining distance as per the seat map and also sanitizing their hands on regular basis.

After lockdown we can manage public transportation in this way.

“A CRITICAL SITUATION TO BE ANALYSED SERIOUSLY”

THEORITICAL ANALYSIS

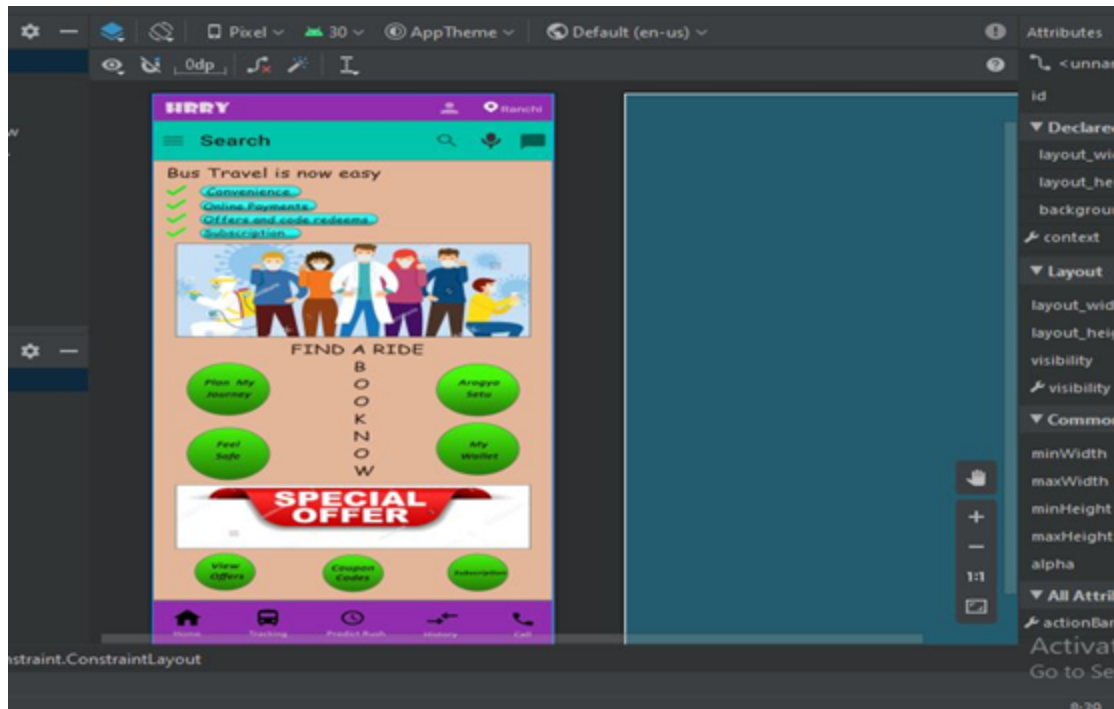
- Block Diagram



- Software designing

We have done software designing using Android Studio, Adobe XD, HTML, CSS, and AVOCADO. We studied about different tools on different platforms which helped in designing the layout of the application.

For Ex: -



EXPERIMENTAL INVESTIGATIONS

DATA COLLECTION FOR DATABASE:

This was our first step. As we know that Data collection is an important part of marketing research. Collecting data allows us to store and analyze important information about our existing and potential customers. Collecting this information can also save your money by building a database of customers for future marketing and re-targeting efforts.

As opposed to in-person data collection, collecting data digitally allows for much larger sample sizes and improves the reliability of the data. It costs less and is faster than in-person data, and it removes any potential bias or human error from the data collected.

For the collection of data, we created a google form. This form helped us a lot in creating some of the features of the app like the:

1. How many people prefer to travel by public transport.
1. The no. of days they travel by public transport and what time do they prefer to travel.
2. What age group of people mostly prefer public transport
3. What kind of payment mode do they prefer, etc.

The image shows a Google Form titled "Survey - copy" with a subtitle "We are conducting a survey for an online transportation app." The form has three sections: "Email address" (required, with a validation message "Valid email address" and a note "This form is collecting email addresses. Change settings"), "Name" (required, with a label "Short-answer text"), and "Gender" (required, with three radio button options: "1. Female", "2. Male", and "3. Others"). The form is displayed in a preview mode with a purple border.

Age *

1. Under 14 yrs
2. 15 to 59 yrs
3. above 60 yrs

Preference for travel ? *

1. Public transport
2. Private transport

No. of days you travel in a week by public transport? *

- | | | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Slots you prefer to travel in ? *

1. 8AM to 11AM
2. 12PM to 4PM
3. 6PM to 10PM

Distance u travel by public transport (in radius)? *

1. under 2km
2. 2km to 5km
3. 6km to 10km
4. greater than 10km

Mode of payment ? *

1. Cash
2. Cashless payment

DATA ANALYSIS:

The data collected using this form helped us in designing various features.

For example:

Many people prefer online mode for payment so we created a feature called **e-wallet** for our app so that it will ease the process of payment for people who prefer online payment.

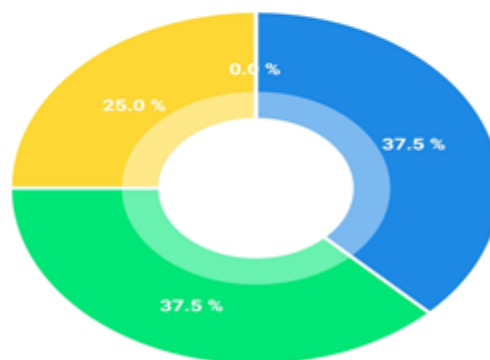
We also analyzed that the ratio of women travelling in public transport at night is comparatively less than the ratio of man. This is due to the fact that many female travelers prefer either not to travel or they use private transport to travel as they don't feel safe to travel by public transport at late hours in night.

This is how data analyzation helped us in creating these features.

Some images of data analyzation through graph:

7. Distance u travel by public transport (in radius)?

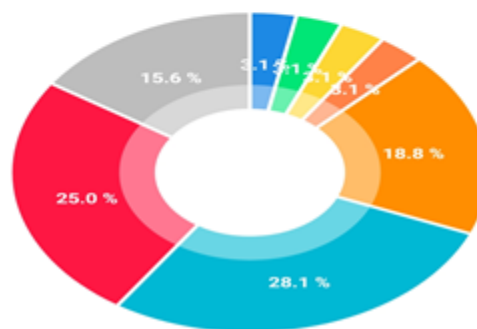
PIE CHART



5. No. of days you travel in a week by public transport?

PIE CHART

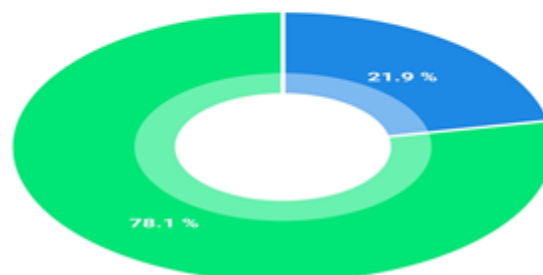
- 0 - 1
- 1 - 1
- 2 - 1
- 3 - 1
- 4 - 6
- 5 - 9
- 6 - 8
- 7 - 5



8. Mode of payment ?

PIE CHART

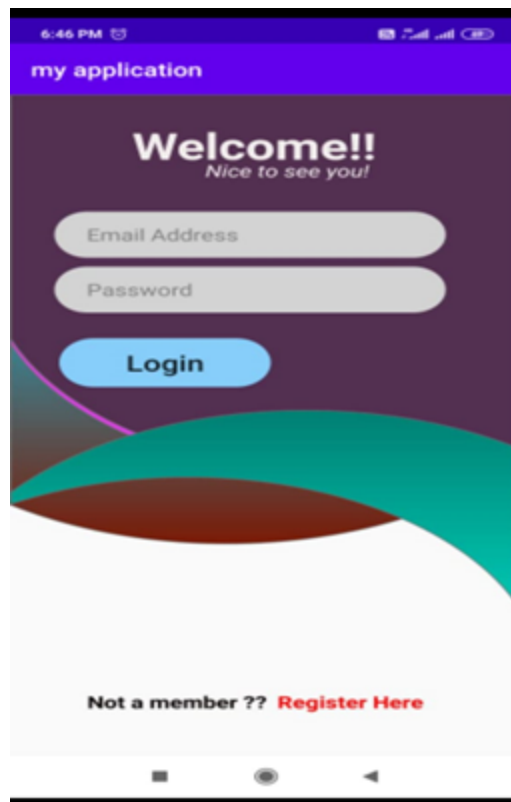
- Cash - 7
- Cashless payment - 25



USER PROFILE: LOGIN AND REGISTRATION

- Login Page

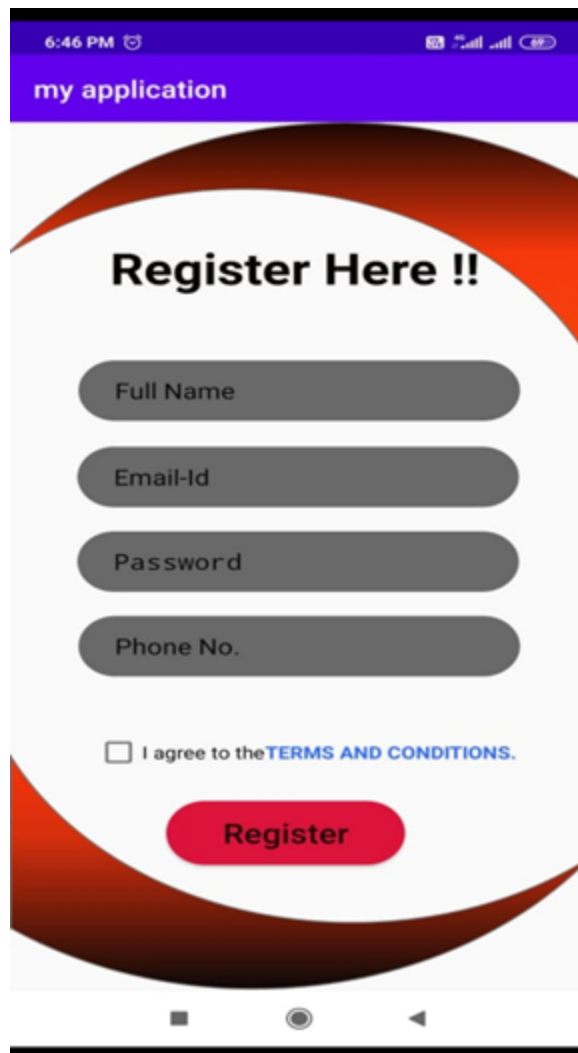
This page is the login page where the user will login in to their account. After that only the users will be able to access the application for tickets booking. But before that the user needs to register if the registration process is not done.



- Registration Page

This page is for the user to register for their respective accounts where the user will be filling up their basic details which includes mail id, mobile no., profile picture, address etc. After registration only the user will be able to login into their respective accounts and book

tickets.

A screenshot of a mobile application's registration screen. The status bar at the top shows the time as 6:46 PM and various system icons. Below the status bar is a purple header with the text "my application". The main content area has a white background with a large, stylized orange and red curved graphic on the left. The text "Register Here !!" is centered in bold black font. Below this are four rounded rectangular input fields with placeholder text: "Full Name", "Email-Id", "Password", and "Phone No.". Below the input fields is a checkbox followed by the text "I agree to the [TERMS AND CONDITIONS](#)". At the bottom of the form is a red rounded rectangular button with the text "Register". The bottom of the screen shows the standard Android navigation bar with back, home, and recent apps icons.

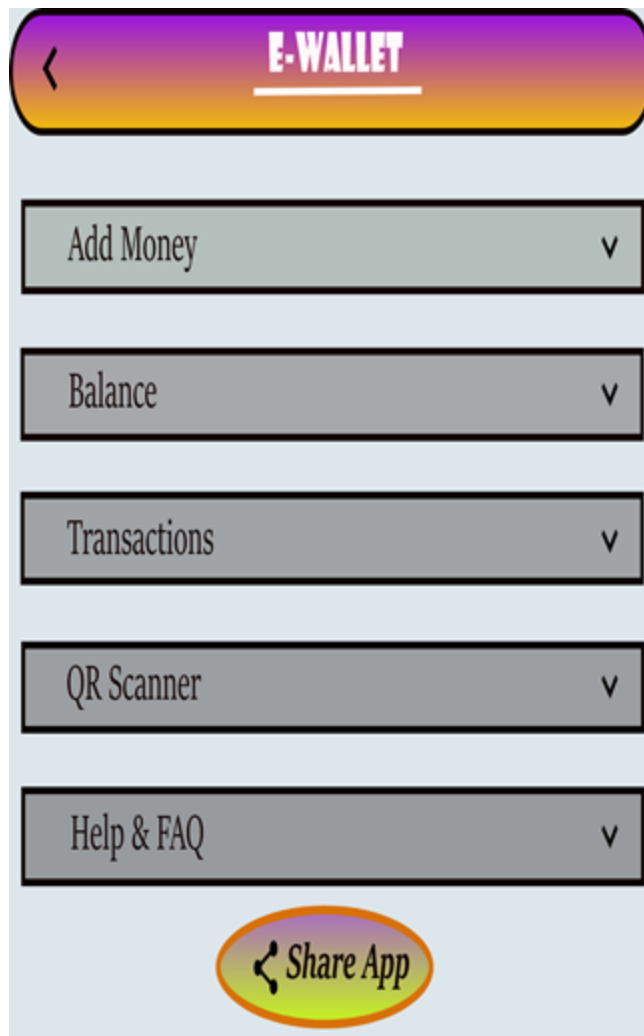
- **Home Page**

Once the user has completed the registration process and has logged in using the email id and password the user is directed to the HOME PAGE where the user encounters many options and can go through the facilities of the application.



- **E-Wallet**

e-wallets have now become a necessity for an app. They ease the process of transaction. They help us to save our time. We can now do recharges, bill payments etc., at just one click. There is no need of paper currency at all. They have reduced the threat of robbery. Large amount of money can be transferred at just one click. Our this feature consists of various options. This can be seen in the below screenshot of our app -



- **PLAN MY JOURNEY**

This is an interface with the option named "Plan My Journey", inside which the user can plan his/her journey. When clicked on the FIND BUS option the user will be redirected to a page where they will get the search results of the buses according to their location and where they will select the bus according to the availability of seats and timing of departure and arrival which is being displayed on that page. When clicked again on BOOK TICKETS option the user will be redirected to the MY BOOKING page where the user can prefer the type of booking:

- **GENERAL BOOKING**

Bus Reservation System is designed to automate the online ticket purchasing through an easy-to-use online bus booking system. Embed our online bus ticketing system into your website and enable your customers to book tickets for various routes and destinations. With the bus ticket reservation system, you can manage reservations, client data, and passenger lists. You can also schedule routes, set seat availability, upload an interactive seat map and let customers select their seats. This is a general booking process where any passenger can book their tickets.

- **FEMALE BOOKING**

This is a special feature for female travelers which lets them see the no. of female passengers travelling in the bus they are going to book their seats in and a seat map is also shown to them in which they can which seats of the bus are booked by the female passengers and so they can also book their seats close to the fellow women passengers travelling in that bus. Because many solo female passengers feel uncomfortable while sharing seat with a male passenger or while travelling alone in a public transport with a majority of male passengers.

PLAN MY JOURNEY

Hello User!

Plan your journey

From Stoppage

→←

To Stoppage

Journey Date

☐ Flexible with date

☐ Book in for special authorisation

FIND BUS

HAPPY JOURNEY! 😊

SEARCH RESULTS!

<input type="checkbox"/>	Buses	Seat Available (Max seat=15)	Estimated time of departure from source	Estimated time of arrival at destination
<input type="checkbox"/>	Bus_no.-HM	10	9.00	9.30
<input type="checkbox"/>	Bus_no.-MH	12	11.00	11.30
<input type="checkbox"/>	Bus_no.-HAM	7	15.00	15.40
<input type="checkbox"/>	Bus_no.-HRM	5	12.00	12.40
<input type="checkbox"/>	Bus_no.-MLH	12	13.30	14.10
<input type="checkbox"/>	Bus_no.-HBM	6	9.30	10.05

BOOK MY
TICKET



MY BOOKING

Book your tickets here!

Preferred booking type?

ADD PASSENGERS

+ Add New

+ Add Infant

Preferred Seat no. for females (only for female booking)

Passenger Mobile No.

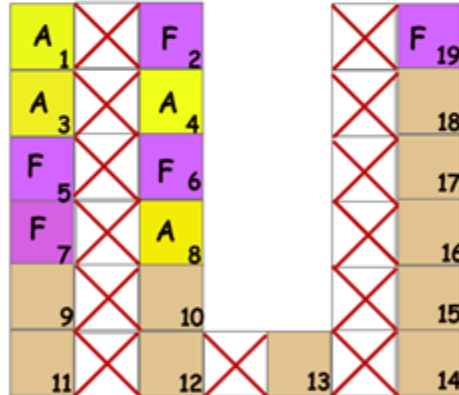
+91-

*SMS will be sent to +91-

E-mail ID

*Your e-ticket will be sent to *****239@gmail.com and +91-911****471

SEAT MAP:



-  SEATS ALLOTTED TO OTHER PASSENGERS
-  SEATS ALLOTTED TO FEMALES
-  VACANT SEATS
-  SEATS THAT CANNOT BE ALLOTTED

Select your payment mode

☐ Phone Pay

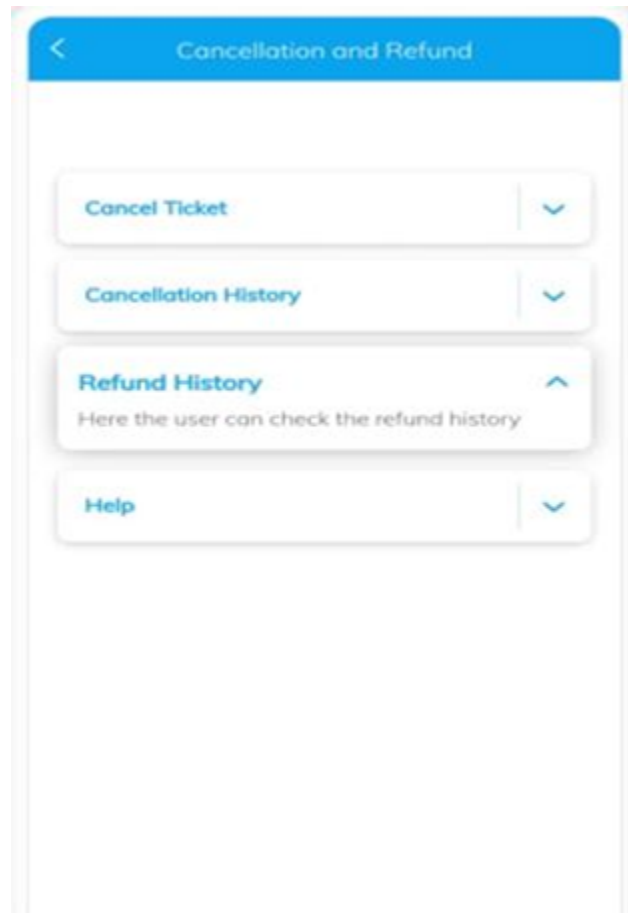
☐ PayTm

☐ I agree to the Terms & Conditions

SUBMIT

CANCELLATION AND RFEUND:

This is a general option which every booking app consists of. This feature consists of options like cancel my ticket, cancellation history, refund status and refund history and the help option.



OFFERS AND SUBSCRIPTION

With the help of this option , it will be easy to take a monthly or

yearly subscription for the dailt users. This section also provides several offers to usera for cheaper and better experience.

Offers And Subscription

Offers

*Recharge
And
Bill Payment*

*Shop
Payment*

*Online
Shopping*

*Other
Offers*

Subscription

*Weekly
Rs. 299*

*Monthly
Rs. 499*

*Yearly
Rs. 1099*

Travel History

This page will help to check your travel history when ever you want and this also has a great feature which will tell the users that the area that they travelled to was safe, moderate, or risky based on the covid 19 cases in that perticular area.



Today

HM	↑	Hinoo - Morabadi	★
----	---	------------------	---

Yesterday

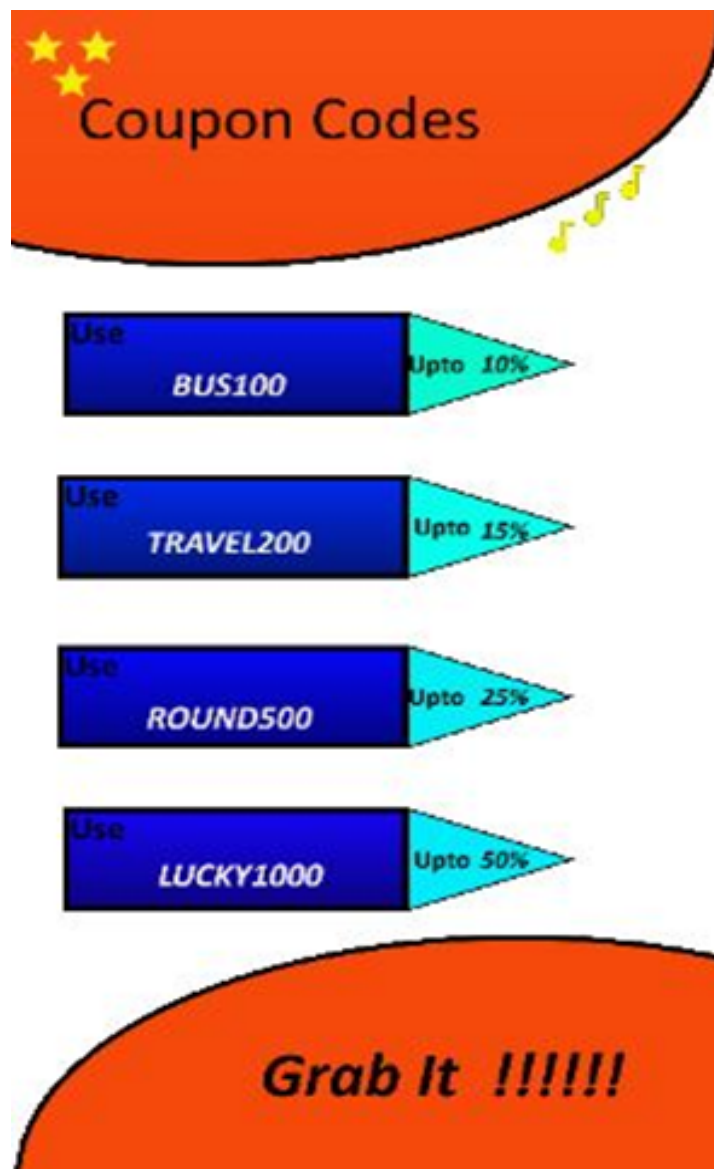
HM	↓	Hinoo - Morabadi	★
LB	↑	Lalpur - Bariatu	★
LB	↑	Lalpur - Bariatu	★

2nd July 2020

RB	↓	Rajendra Chowk - Birsa Chowk	★
NR	↑	Namkum - Rajendra Chowk	★
MH	↓	Main Road - Hinoo	★
RB	↑	Rajendra Chowk - Birsa Chowk	★

Coupon Codes

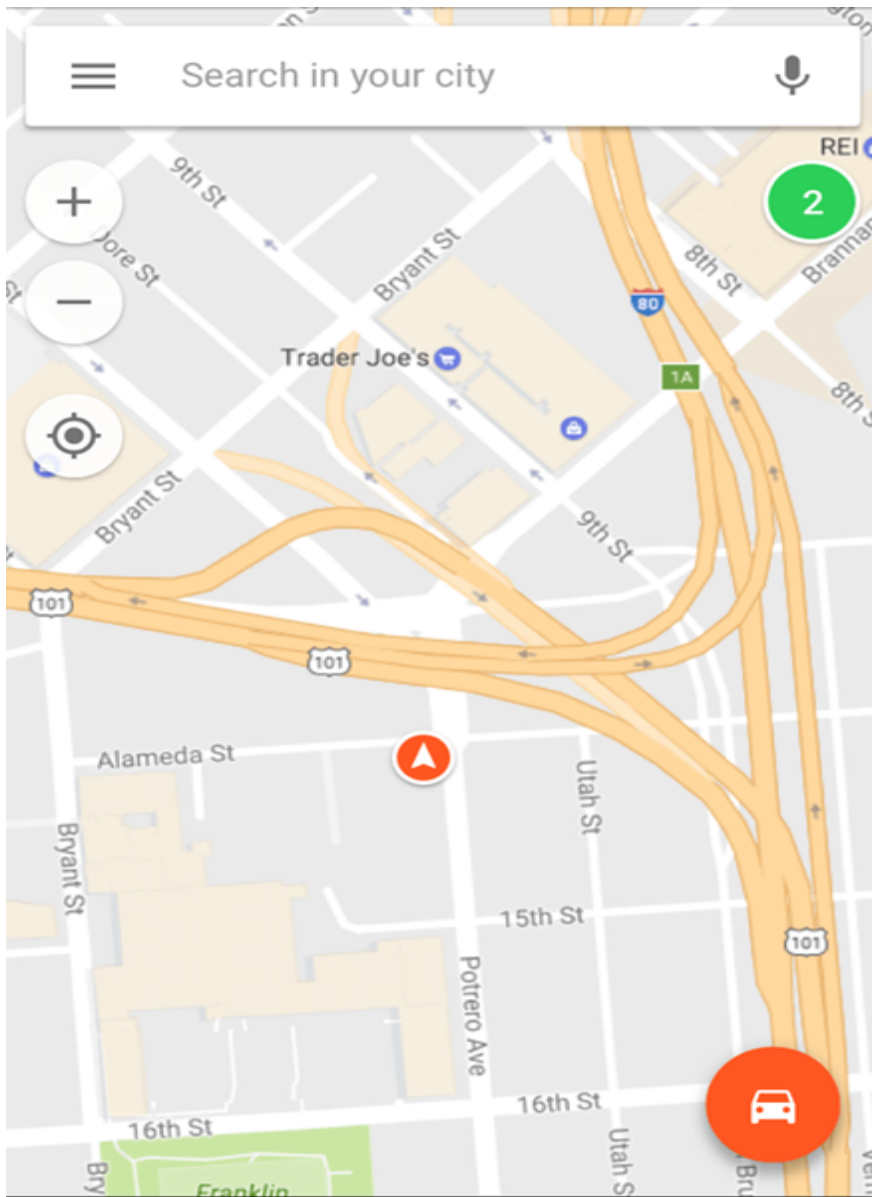
This option will provide several coupon codes for discount on users ride. Specially on occasions to experience a cheap and safe ride.




LIVE TRACKING AND RUSH HOUR

PREDICTION

- a. The user will be able to perform real time tracking of the bus using GPS tracker.



- b. Rush hour predictor will predict the rush in particular hrs and particular days. Suggestions will be provided in case of rush hrs so that one could go for another bus travelling at the same time and same destinations.



Rush Hour Predictor

Enter the Time *

Enter Bus NO. *

Enter the Destination *

SUBMIT

RESULT

LINKING OF AAROGYA SETU APP

- This option is to keep the user updated with the Aarogya Setu app.
- As per the government norms it will be mandatory for every user to create and link their Aarogya Setu account with this account. It will be helpful for the government to track travel history of the user.
- This is required because if the user is found infected it will be easy to find others with whom the user came in contact with.



EMERGENCY BOOKING

- Emergency booking will help the user to book tickets when in emergency. It will be for the people who is in need of immediate travelling.
- For this the ticket can be booked only by assistance on call option which is present on the HOME SCREEN below.



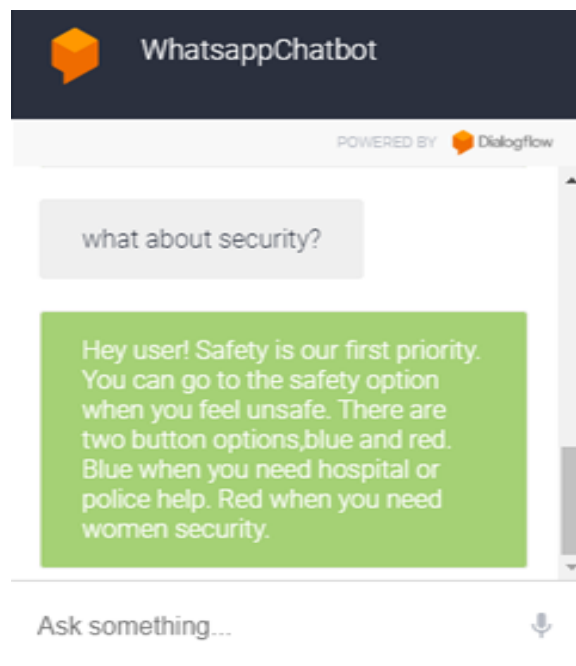
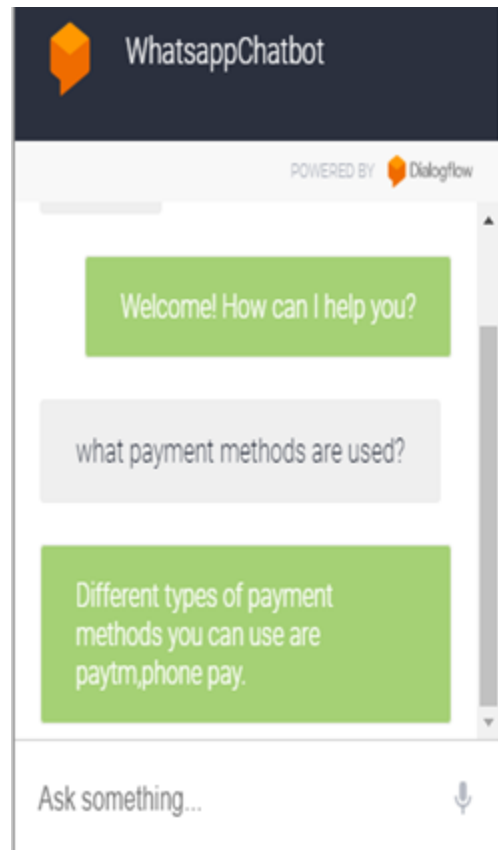
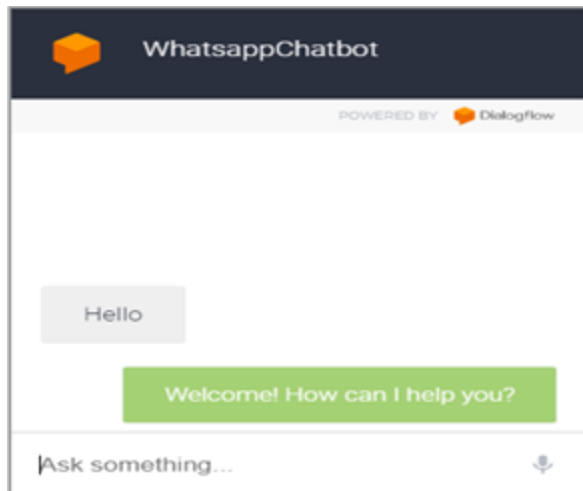
WHATSAPP CHATBOT

WhatsApp chatbot is a virtual assistant that assists the user of the app. Chatbot helps the user with the queries asked by the user.

WhatsApp chatbot is made to ease the work of the users which assists the users whenever the user approaches the bot. The bot answers any kind of queries the user asks the bot related to the app and the features of the application. This is implemented on the app to make the user understand the application in simple manner by asking queries to the bot and also the user does not have to look here and there for knowing any details related to the app as the bot is capable of answering approximately all the questions related to the application.

APPLICATIONS

- Chatbot for Better Customer Experience. A chatbot can provide customer service, present product recommendations and engage customers through marketing campaigns.
- Chatbot for Conversational Commerce.
- Chatbot for Personal Assistance.
- Chatbot for Project Management.
- Chatbot for Data Gathering and Analysis.



Voice on Implementation

A voice on implementation is a digital assistant that uses voice recognition, natural language processing and speech synthesis to provide aid to users through phones and voice recognition applications. These are used in help and service phone lines, smartphones and other places to assist users with tasks.

Voice on Implementation can make calls, send text messages, look things up online, provide directions, open apps, set appointments on our calendars, and initiate or complete many other tasks. With the addition of separate apps on the phone, our voice can be a type of remote control for our lives.

CALL SUPPORT

Call Support is a virtual assistant that assists the user of the app. It helps the user whenever they are having problem on call by taking their order and by advising them what to do.

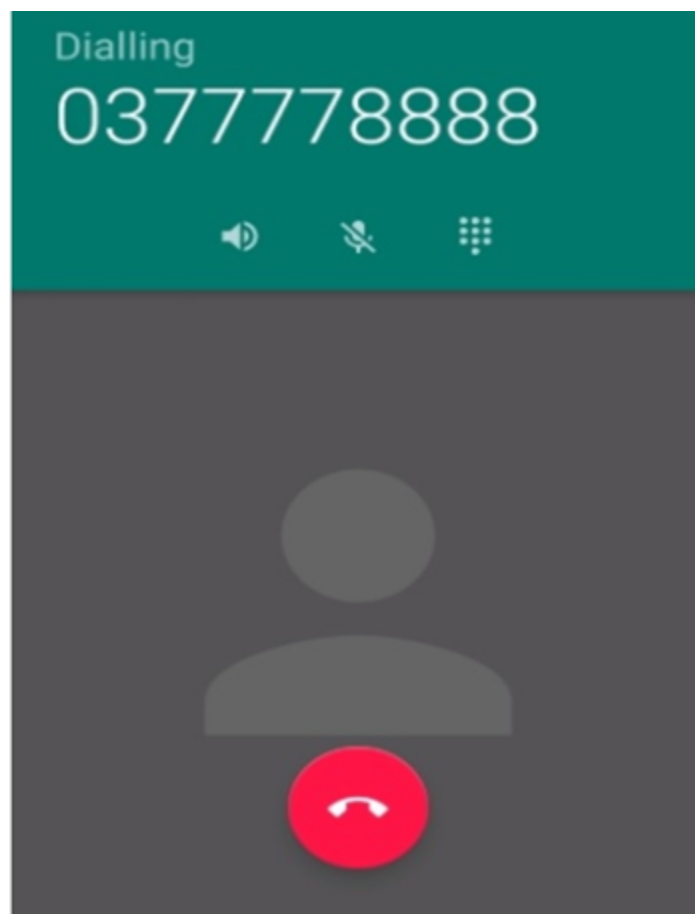
Customers speak directly to customer support representatives over the call. For inbound calls, an IVR (Integrated Voice Response) can be programmed to route captured calls in a variety of ways with the potential goal of quickest resolution of a customer's request/problem. Call Support is often used for order taking, pre-sales queries, upselling

and cross-selling, troubleshooting etc.

Outbound calls are calls made to customers from the call center to give or take information.

APPLICATIONS

- Call Support for Better Customer Experience. A call support can provide customer service, help whenever you are in difficult situation etc.
- Call Support for Conversational Commerce.
- Call Support for Project Management.



SECURITY

“SECURITY IS OUR FIRST PRIORITY”

GENERAL SECURITY

“PRESS BLUE BUTTON”

We have introduced this feature for all the passengers travelling in the bus. When this button is pressed a message is sent to the bus conductor as well as to our call center and the passenger is provided with the kind of help he/she wants whether it is a medical emergency or security issues.

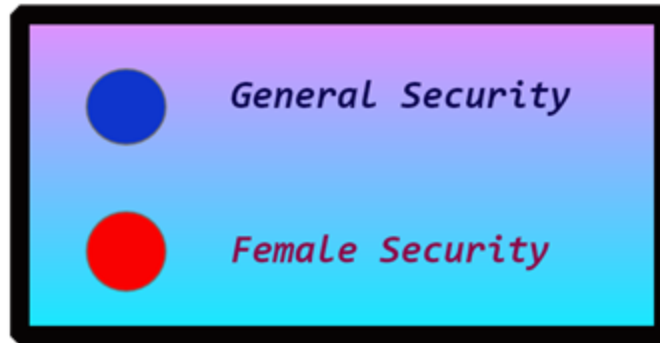
FEMALE SECURITY

“PRESS RED BUTTON”

We have created this red button feature in our app for the female passengers. If anytime they feel uncomfortable or unsafe while travelling, then they can click on this button. As soon as this button is clicked an alarm is raised in the bus and a message is being delivered to the emergency contacts mentioned by the passenger and to the police station with the details of the bus, details of the bus driver and the conductor with the current location of the bus.

FEELING UNSAFE?

"Safety is our first priority"



**Click according to the situation on either of the two*

OTHER HELPLINE NUMBERS



POLICE

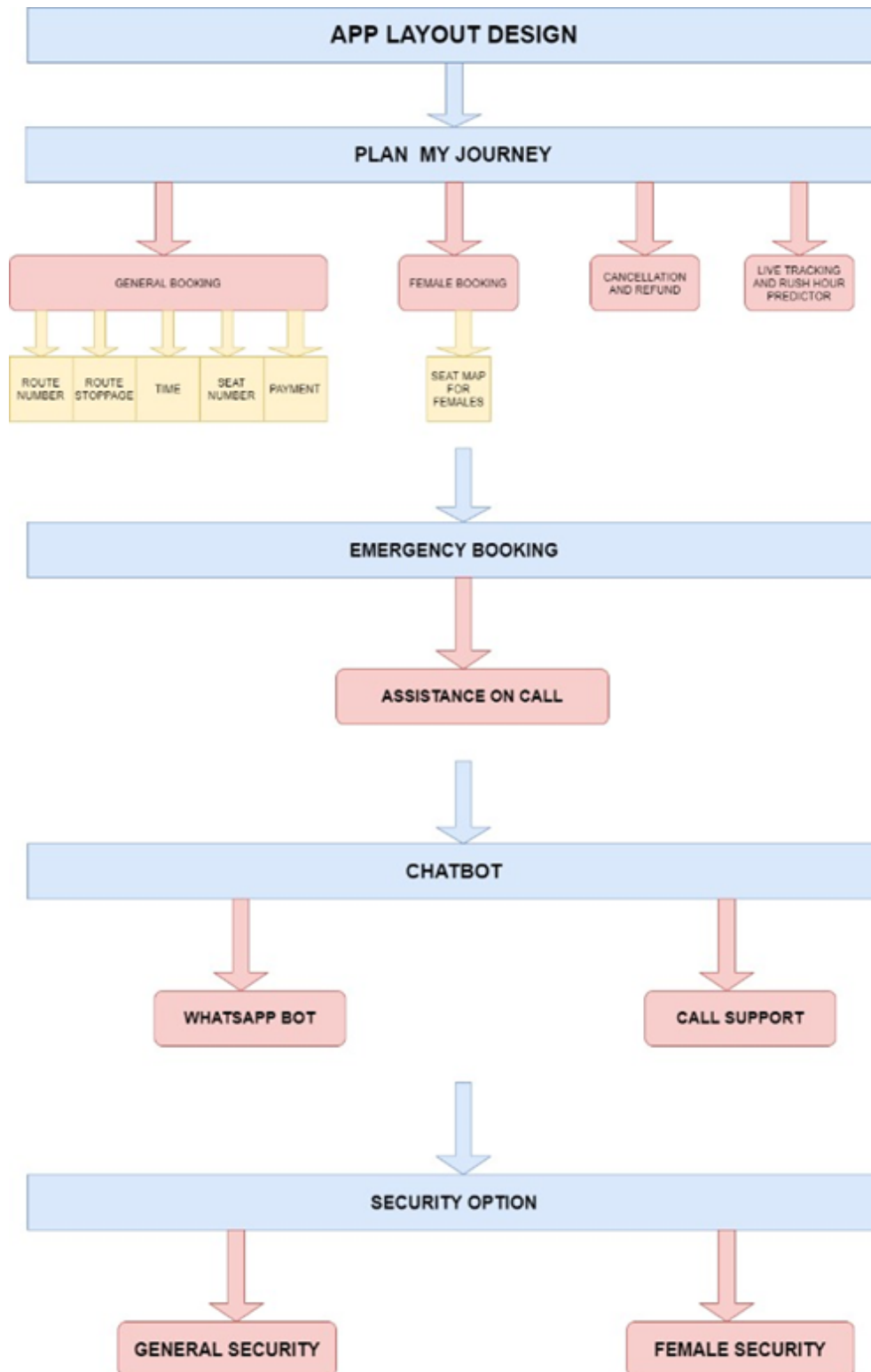
Contact: 1321-2849204



HOSPITAL

Contact: 1210-2319584

FLOWCHART



RESULT

This app will be helpful for all the people who are compelled to travel in this situation also that also in public transport. This is to make sure that the people are safely travelling and are at low risk.

ADVANTAGES AND DISADVANTAGES

- Helps to revive the transport sector of the city in this pandemic.
 - People safety from Covid19 followed by the government norms.
 - Easy and smooth working of the application.
 - Reduces crowd on Bus stands
-
- People not using android phones will not be able to experience these features.
-
- Less number of travellers will travel at a time.

APPLICATIONS

1. Book bus tickets with ease from the comfort of your home or workspace.
2. Quick and easy cancellation and rescheduling options.
3. Exclusive offers and cashback options.
4. M-ticket and e-ticket facilities are available.
5. Wide variety of bus operators, types of buses and routes to choose from.
6. Impeccable customer service.
7. Lower prices.

CONCLUSION

We have created this app specifically according to the needs of a person travelling through the public transport during these times of pandemic.

FUTURE SCOPE

- a. After the pandemic gets over, then also this can serve as an effective way to help users travel through the public transport.
- b. This can help people use public transport more effectively due to the security measures we have taken in this app for women as well as male passengers

BIBLIOGRAPHY

- www.youtube.com
- www.geeksforgeeks.org
- <https://radiostud.io>
- <https://www.adobe.com>
- <https://avocado.com>
- <https://developer.android.com>

SOURCE CODE

User Login (.XML)

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/topText"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/back"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/loginbtn"
        android:layout_width="162dp"
        android:layout_height="53dp"
        android:background="@drawable/button"
        android:text="Login"
        android:textAllCaps="false"
        android:textSize="24dp"
        app:layout_constraintBottom_toTopOf="@+id/textView3"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.164"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.445" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="204dp"
        android:layout_height="43dp"
        android:text="Welcome!!"
        android:textColor="#F4EFEF"
        android:textSize="40sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.042" />
```

<TextView

```
    android:id="@+id/textView2"
    android:layout_width="146dp"
    android:layout_height="22dp"
    android:text="Nice to see you!"
    android:textColor="#F4EFEF"
    android:textSize="18sp"
    android:textStyle="italic"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.607"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.101" />
```

<TextView

```
    android:id="@+id/textView3"
    android:layout_width="157dp"
    android:layout_height="27dp"
    android:text="Not a member ??"
    android:textColor="#070000"
    android:textSize="18sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.251"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.938" />
```

<TextView

```
    android:id="@+id/textView4"
    android:layout_width="157dp"
    android:layout_height="27dp"
    android:text="Register Here"
    android:textColor="#ED0202"
    android:textSize="18sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.87"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

```

app:layout_constraintVertical_bias="0.938" />

<EditText
    android:id="@+id/editTextTextPersonName"
    android:layout_width="300dp"
    android:layout_height="50dp"
    android:background="@drawable/input_field"
    android:ems="10"
    android:hint="Email Address"
    android:inputType="textPersonName"
    android:textColorHint="#808080"
    app:layout_constraintBottom_toTopOf="@+id/editTextTextPassword2"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.369"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.928" />

<EditText
    android:id="@+id/editTextTextPassword2"
    android:layout_width="300dp"
    android:layout_height="50dp"
    android:background="@drawable/input_field"
    android:ems="10"
    android:hint="Password"
    android:inputType="textPassword"
    android:textColorHint="#808080"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.369"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.28" />
</android.support.constraint.ConstraintLayout>

```

Registration Page (.java)

```

package com.example.myapplication;

import android.support.v7.app.AppCompatActivity;

```

```
import android.os.Bundle;

import android.text.Editable;

import android.text.InputType;

import android.text.TextWatcher;

import android.view.View;

import android.widget.EditText;

import android.widget.TextView;


import org.w3c.dom.Text;


public class register extends AppCompatActivity {


    private EditText mPawEditText;

    private TextView mToggleTextView;


    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_register2);
    }
}
```

```
mPawEditText = (EditText) findViewById(R.id.editTextTextPassword3);

mToggleTextView = (TextView) findViewById(R.id.shoow);

mToggleTextView.setVisibility(View.GONE);

mPawEditText.setInputType(InputType.TYPE_CLASS_TEXT |
InputType.TYPE_TEXT_VARIATION_PASSWORD);

mToggleTextView.addTextChangedListener(new TextWatcher() {

    @Override

    public void beforeTextChanged(CharSequence charSequence, int i, int i1, int i2) {

    }

    @Override

    public void onTextChanged(CharSequence charSequence, int i, int i1, int i2) {

        if (mPawEditText.getText().length() > 0) {

            mToggleTextView.setVisibility(View.VISIBLE);

        }

        else {

            mToggleTextView.setVisibility(View.GONE);

        }

    }

});
```

```
        }

    }

    @Override

    public void afterTextChanged(Editable editable) {

    }

});

    mToggleTextView.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View view) {

            if (mToggleTextView.getText () == "SHOW"){

                mToggleTextView.setText("HIDE");

mPawEditText.setInputType(InputType.TYPE_TEXT_VARIATION_VISIBLE_PASSWORD);

            }

            else{

                mToggleTextView.setText ("SHOW");

            }

        }

    }

}
```



```

        mPawEditText.setInputType(InputType.TYPE_CLASS_TEXT |
InputType.TYPE_TEXT_VARIATION_VISIBLE_PASSWORD);

    }

    mPawEditText.setSelection(mPawEditText.length());

}

});

}

}

```

Android Manifest (.xml)

```

<?xml version="1.0" encoding="utf-8"?>

<manifest xmlns:android="http://schemas.android.com/apk/res/android"

    package="com.example.myapplication">

    <application

        android:allowBackup="true"

        android:icon="@mipmap/ic_launcher"

        android:label="@string/app_name"

        android:roundIcon="@mipmap/ic_launcher_round"

        android:supportRtl="true"

        android:theme="@style/AppTheme">

        <activity android:name=" . page "></activity>

```

```
<activity android:name=".register">

    <intent-filter>

        <action android:name="android.intent.action.MAIN" />

        <category android:name="android.intent.category.LAUNCHER" />

    </intent-filter>

</activity>

<activity android:name=".MainActivity">

    <intent-filter>

        <action android:name="android.intent.action.MAIN" />

        <category android:name="android.intent.category.LAUNCHER" />

    </intent-filter>

</activity>

</application>

</manifest>
```