Project Report

Blind Assistance

By

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Under the guidance of
Internal Supervisor

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Department of Master Of Computer Application
Sardar Patel Institute of Technology
Autonomous Institute Affiliated to Mumbai University

2021-22

CERTIFICATE OF APPROVAL

This is to certify that the following students

Vaibhav Kamble (2021510023)
Anjali Saharkar (2021510057)

Have satisfactorily carried out work on the project entitled

"Blind Assistance"

Towards the fulfilment of project, as laid down
by
Sardar Patel Institute of Technology
during year
2021-22.

Project Guide:
Prof. Pallavi Thakur

PROJECT APPROVAL CERTIFICATE

This is to certify that the following students

Vaibhav Kamble (2021510023)
Anjali Saharkar (2021510057)

Have successfully completed the Project report on

“Blind Assistance”,

which is found to be satisfactory and is approved

at

SARDAR PATEL INSTITUTE OF TECHNOLOGY,
ANDHERI (W), MUMBAI

INTERNAL EXAMINER EXTERNAL EXAMINER

HEAD OF DEPARTMENT PRINCIPAL

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Abstract

Blind persons do not have the opportunity to read or write.. Hence, I am making an application which will allow the person to call someone,it also enable to read the printed text with camera by just tapping on the screen using speech engine. I have also designed a talking calculator so that blind people can use the calculator via voice commands. Along with that I have added some of the applications so that they helpful to blind people use during everyday life. It also shows your current location. With the help of this application user will also find weather in any of the city or location. It also requires minimal effort from the user to use the application during everyday life. With the rapid growth of wireless communications, the need for voice recognition techniques have increased greatly. Speech applications with voice interfaces, voice recognition, and voice conversation management can all be beneficial.to be focused on their current work without extra effort for hands or eyes. The application listens to your commands and then responds with voice commands by talking.

Objectives

The Android based Application ”Blind Assistance” is used

- To enable the blind and elderly people enjoy a User-friendly touch screen interface.
- App enables the camera to take pictures of printed material, rapidly convert the images into text ,it also read the text.
- Detect the current weather.
- Track the Current Location of Blind Person.
- To implement an isolated whole word speech synthesizer that is capable of converting text and responding with speech.
- Check the Battery Percentage , it also notify you about low battery status.
- Exit Application.

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1 Introduction

1.1 Problem Definition

To reduce the day to day struggle of Blind Person and introduce them with the technology of using basic app having features like OCR reader,Current location,Weather of particular city,Battery Status,Calculator and Exit.

1.2 Objectives and Scope

1.2.1 Objectives

The Android based application ”Blind Assistance” is

- To enable the blind and elderly people enjoy a User-friendly touch screen interface.
- App enables the camera to take pictures of printed material, rapidly convert the images into text ,it also read the text.
- Detect the current weather.
- Track the Current Location of Blind Person.
- To implement an isolated whole word speech synthesizer that is capable of converting text and responding with speech.
- Check the Battery Percentage , it also notify you about low battery status.
- Exit Application.

1.2.2 Scope

It can be further enhanced by using machine learning technology to add object detection functionality .Add reminder functionality.

1.3 Existing System

The Existing System has following applications:-

- VoiceOver:-VoiceOver is a screen reader that's integrated into iPhones that, as its name indicates, enunciates emails or other textual messages aloud. It's up to the user to choose the speaking rate and the volume.

- Talkback:-Android smartphones also have a similar screen reader with TalkBack. It follows the same guideline as for iPhones: reading textual elements aloud, exploring the screen, using braille with BrailleBack... Everything is set for an optimal and smooth navigation!

- Siri:-Directly integrated into iPhones, Siri is an easy-to-use vocal assistant. For blind or visually impaired people, for whom finding and clicking on the right button can be difficult, using a voice control enables them to save time!

- Google Assistant:-Also activated by voice control, Google Assistant has the same functionality as Siri. The user totally controls their smartphone according to their needs: sending an email, setting up an alarm, managing their schedule...

- Google Maps:-It's one of the most popular GPS navigation apps. Being able to anticipate their route is essential for blind and visually impaired people. And this also applies for other types of profiles in general since people with disabilities use 30

1.4 Proposed System

a. First I have added the required dependencies that allows us to include external library or local jar files or other library modules in our Android project. Then in the xml I have designed the user interface of the application. In MainActivity.java I have created all the methods that will help to user to open certain task by simple voice command. By left swiping on the screen user will read the feature or operations of the app.By right swiping on the screen voice input will start. After user gives the voice command it will automatically redirected to that particular activity. Lets say If user say "read" then it will automatically open read activity. So that user will just tap on the screen and take the picture and read aloud text in it.

b. Methods Used: i. Text to Speech (TTS):- TTS is a method that converts speech from text. TTS is important for voice output for voice feedback for user. TTS is implemented in software where audio capability is required. When user enters voice command, TTS will convert that voice into text format and performs specific action. ii. Speech to Text(STT):- Android has a inbuilt feature that is speech-to-text through which user can provide speech input to the software. In the background speech input will be converted to text and perform action in the form of TTS.

System architecture: - The system proposes following applications:

- OCR reader: -
  After swiping right on the screen user has to say “read” then it will ask you want to read say yes for continue and no to return the main menu.
- Calculator: -
  User has to say “calculator” after that user has to tap on the screen and say what to calculate then application will say the answer.
- Location: -
  In this user has to say location after that user will tap on the screen then it will say current location.
- Weather: -
  In this user will say “weather” and then say the name of the city. After that application will say the weather of that particular city.
- Battery: -
  To check the current phone battery status user has to say battery.
- Time and date: -
  To check current time and date user has to say time and date.

1.5 System Requirements

- Hardware Requirements on Server Side

Table 1.5.1: Hardware Requirements on Server Side

Processor	Dual Core Processor or Above
RAM	Minimum 4 GB RAM
Storage	Minimum 10 GB Hard Disk Space for smooth run

- Hardware Requirements on Client Side

Table 1.5.2: Hardware Requirements on Client Side

Device	Android Device with Touch Screen minimum 5" inch Display
Processor	Dual Core Processor or Above
RAM	Minimum 2 GB RAM
Storage	Minimum 250 MB Storage Space

- Software Requirements on Server Side

Table 1.5.3: Software Requirements on Server Side

Operating System	OS Independent

- Software Requirements on Client Side

Table 1.5.3: Software Requirements on Client Side

Operating System	Android smartphone
Server	Not Required

2 Software Requirement Specification (SRS) and Design

2.1 Purpose

The purpose of our project is to help the blind person by providing the android application having feature of OCR reader, check weather, Current location, Calculator, Battery status, Exit functionality. By using this application, user will definitely going to be aware with the technology. They will be happier to see that there are group of people who think about their blindness and gives easy way to survive in day to day life.bigskip

2.2 Definition

To build the Blind Assistance app so that the blind person able to check cuurent location,battery status,calculation,read text,Weather,Exit.

2.3 Overall Description

2.3.1 Product Functions

The product function includes:

1. OCR reader: -
   After swiping right on the screen user has to say "read" then it will ask you want to read say yes for continue and no to return the main menu.
2. Calculator: -
   User has to say "calculator" after that user has to tap on the screen and say what to calculate then application will say the answer.
3. Location: -
   In this user has to say location after that user will tap on the screen then it will say current location.
4. Weather: -
   In this user will say "weather" and then say the name of the city. After that application will say the weather of that particular city.
5. Battery: -
   To check the current phone battery status user has to say battery.
6. Time and date: -
   To check current time and date user has to say time and date.

2.3.2 User Characteristics

There is only one user in our application.

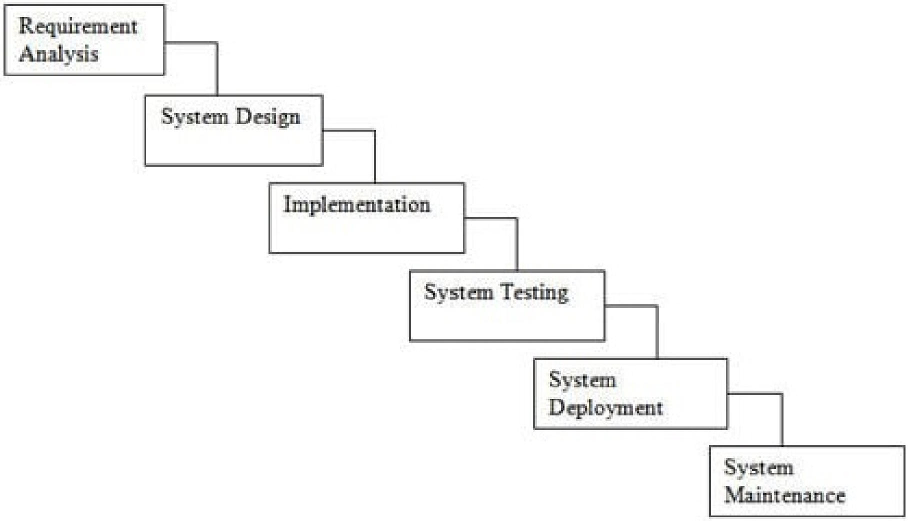
- Blind Person:-The Blind one can use this application as a user to use the basic functionality like call,OCR reader,location,Weather,Battery,Calculator,Time and date.

3 Project Analysis and Design

3.1 Methodologies Adapted

In Waterfall model, very less customer interaction is involved during the development of the product. Once the product is ready then only it can be demonstrated to the end users.

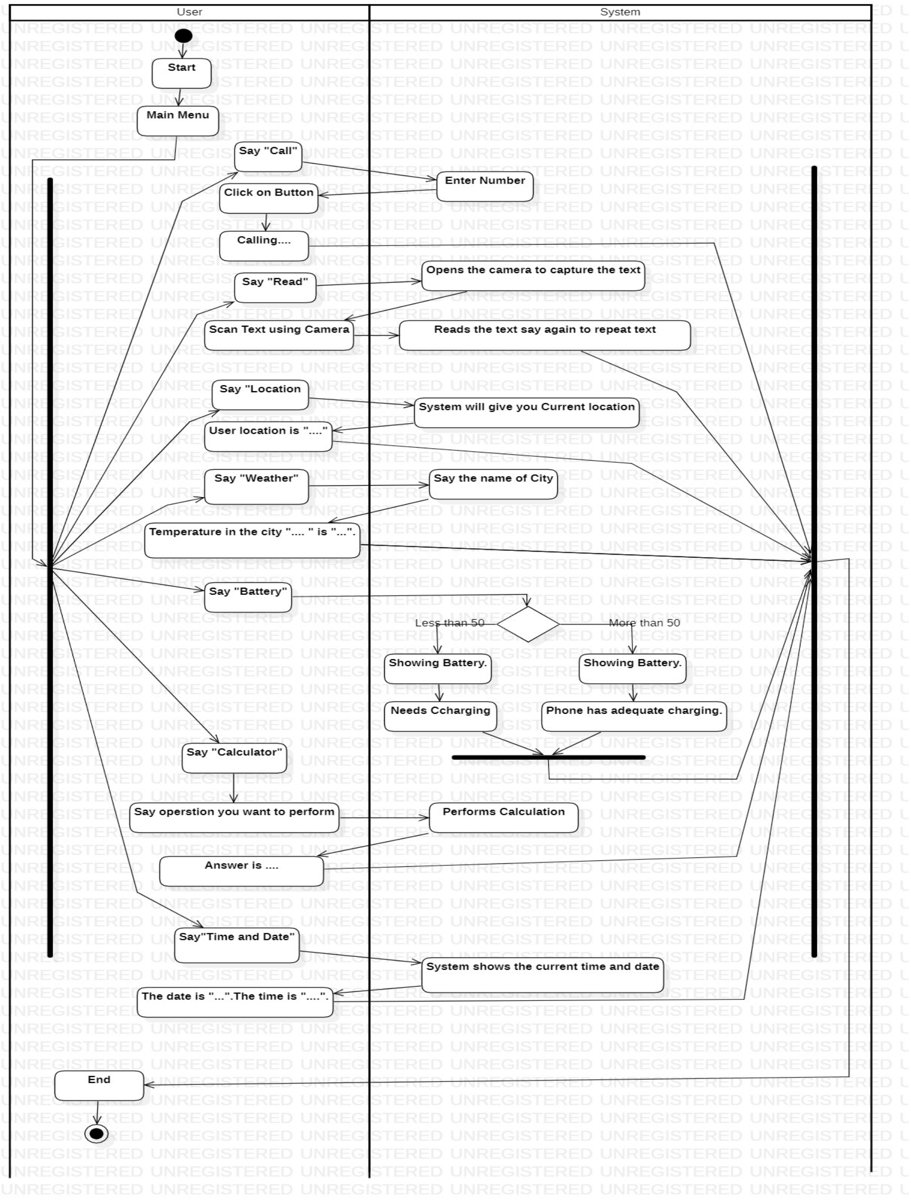
Once the product is developed and if any failure occurs then the cost of such issues is very high, because we need to update everything from document till the logic.



3.1.1: Diagrammatic Representation of Waterfall Model

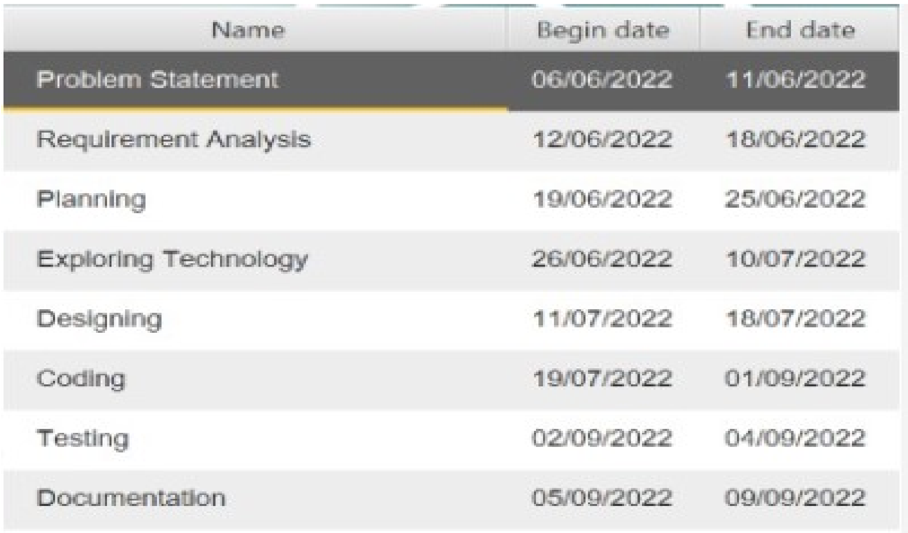
3.2 Modules

3.2.1 Activity diagram



3.2.1: Activity Diagram

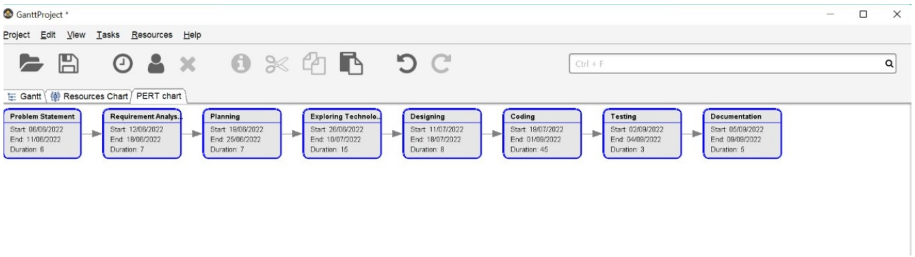
3.2.2 Work Breakdown Structure



Name	Begin date	End date
Problem Statement	06/06/2022	11/06/2022
Requirement Analysis	12/06/2022	18/06/2022
Planning	19/06/2022	25/06/2022
Exploring Technology	26/06/2022	10/07/2022
Designing	11/07/2022	18/07/2022
Coding	19/07/2022	01/09/2022
Testing	02/09/2022	04/09/2022
Documentation	05/09/2022	09/09/2022

3.2.2: Work Breakdown Structure

3.2.3 PERT Chart



Problem Statement
Start: 06/06/2022
End: 11/06/2022
Duration: 6

Requirement Analys...
Start: 12/06/2022
End: 18/06/2022
Duration: 7

Planning
Start: 19/06/2022
End: 25/06/2022
Duration: 7

Exploring Technolo...
Start: 26/06/2022
End: 10/07/2022
Duration: 15

Designing
Start: 11/07/2022
End: 18/07/2022
Duration: 8

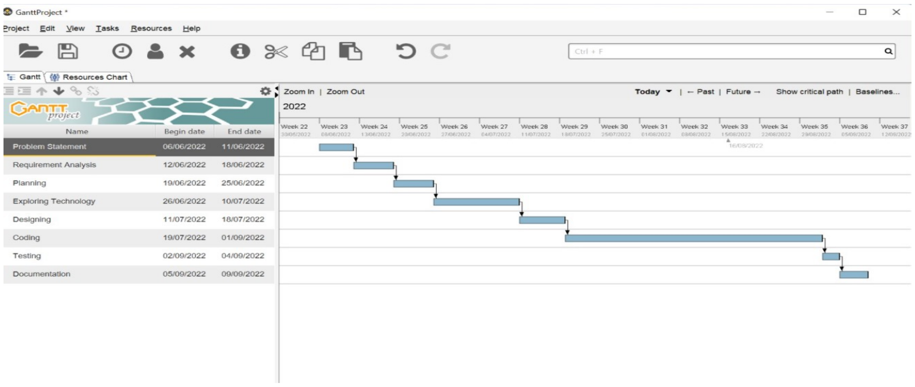
Coding
Start: 19/07/2022
End: 01/09/2022
Duration: 45

Testing
Start: 02/09/2022
End: 04/09/2022
Duration: 3

Documentation
Start: 05/09/2022
End: 09/09/2022
Duration: 5

3.2.3: PERT Chart

3.2.4 Gantt Chart



Name	Begin date	End date
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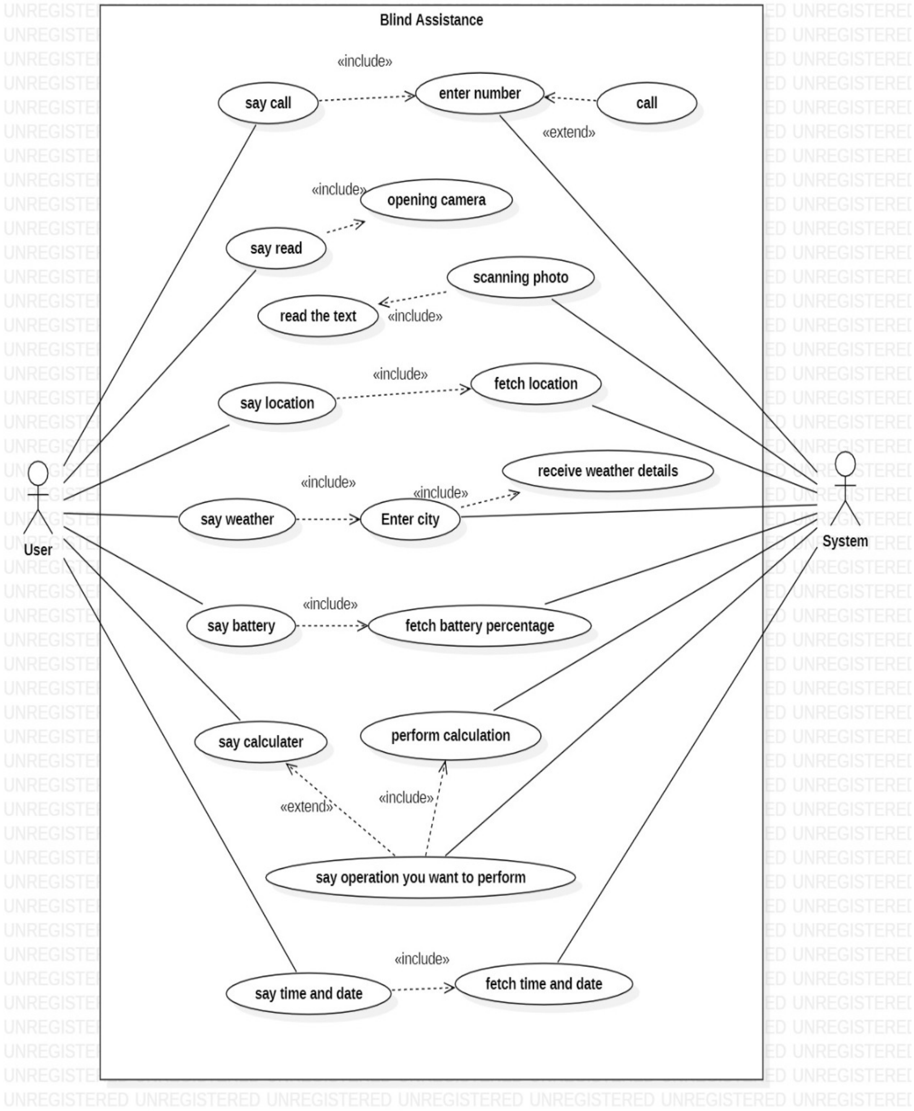
Designing	11/07/2022	18/07/2022
Coding	19/07/2022	01/09/2022
Testing	02/09/2022	04/09/2022
Documentation	05/09/2022	09/09/2022

3.2.4: Gantt Chart

3.2.5 Use-Case



3.2.5: Use-Case Diagram

Use Cases:

1. Call
2. OCR reader
3. Location
4. Weather
5. Calculator
6. Date and Time
7. Battery

Table 4.2.1: Use Case Table - Call

Use Case ID	1
Use Case Name	Call
Actor	Blind Person
Pre-Condition	Permission for contacts.
Post-Condition	User is able to place a call
Flow of events	Say call,Enter number using voice command,Click on button,Calling...

Table 4.2.2: Use Case Table - OCR reader

Use Case ID	2
Use Case Name	OCR reader
Actor	Blind Person
Pre-Condition	Permission for Camera
Post-Condition	User can scan the text using camera and system will read that particular text.
Flow of events	Say Read,Scan the text,user is able to hear text via system.

Table 4.2.3: Use Case Table - Location

Use Case ID	3
Use Case Name	Location
Actor	Blind Person
Pre-Condition	Permission for loaction
Post-Condition	System gives you the current location and user is able to hear it.

Table 4.2.4: Use Case Table - Weather

Use Case ID	4
Use Case Name	Weather
Actor	Blind Person
Pre-Condition	Permission for Location.
Post-Condition	Enter city it will show you the current weather status of particular city.

Table 4.2.5: Use Case Table - Calculator

Use Case ID	5
Use Case Name	Calculator
Actor	Blind Person
Pre-Condition	—-
Post-Condition	Say calculator,Enter numbers with operation,System will show you output using voice commands.

Table 4.2.6: Use Case Table - Date and Time

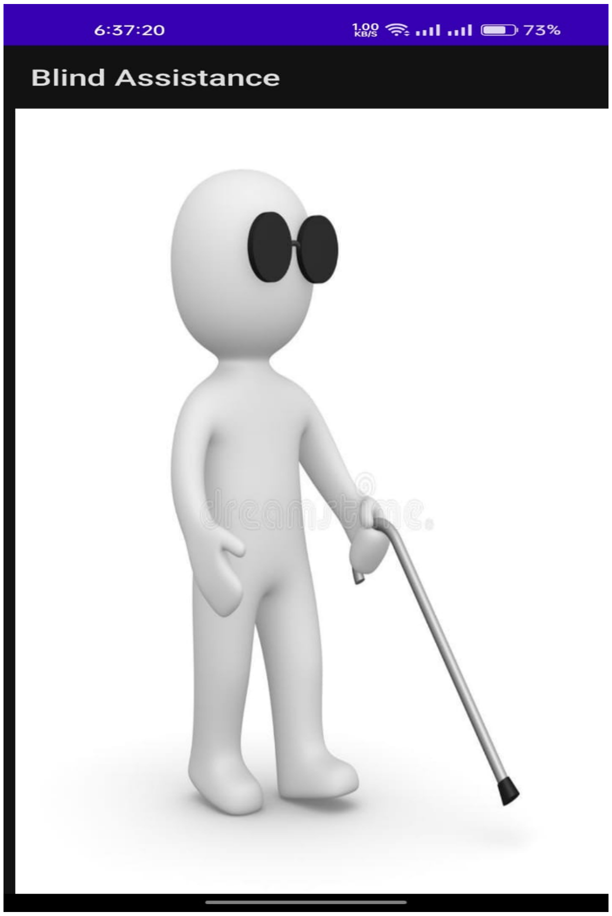
Use Case ID	6
Use Case Name	Date and Time
Actor	Blind Person
Pre-Condition	—-
Post-Condition	System will show you the current date and time.

Table 4.2.7: Use Case Table - Battery

Use Case ID	7
Use Case Name	Battery
Actor	TPC
Pre-Condition	—-
Post-Condition	System will show you the battery percentage.

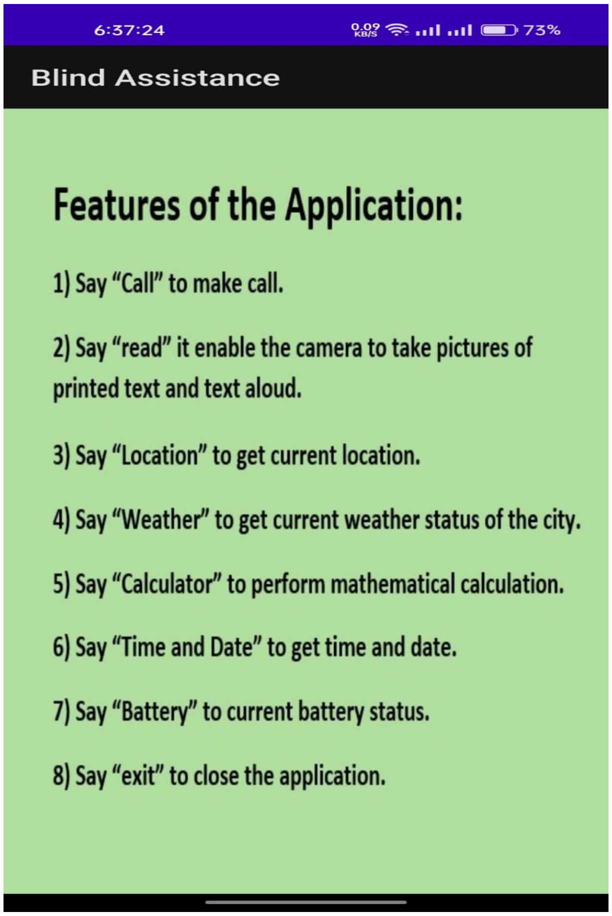
4 Project Implementation and Testing

4.1 MainMenu



4.1.1: MainMenu

4.2 Feature



Features of the Application:

1) Say "Call" to make call.

2) Say "read" it enable the camera to take pictures of printed text and text aloud.

3) Say "Location" to get current location.

4) Say "Weather" to get current weather status of the city.

5) Say "Calculator" to perform mathematical calculation.

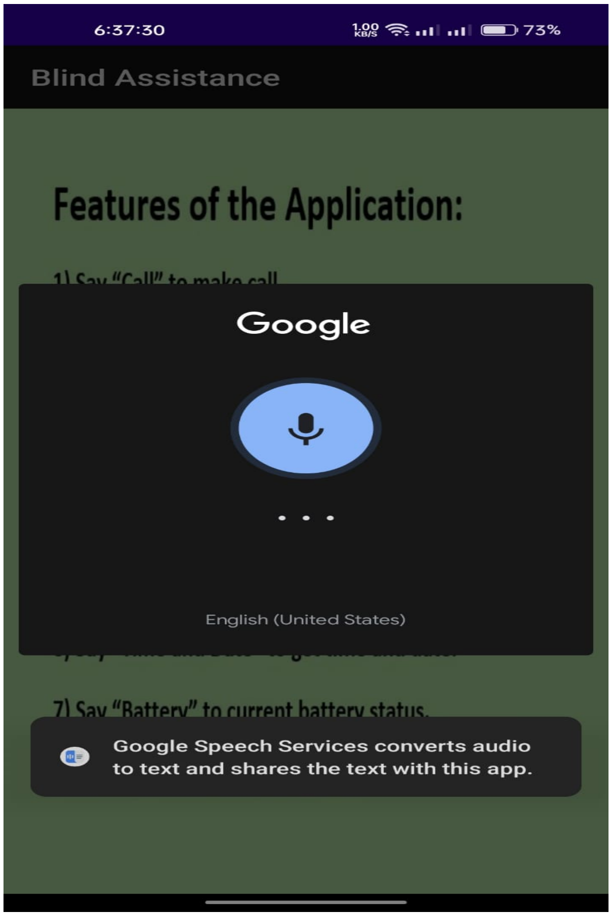
6) Say "Time and Date" to get time and date.

7) Say "Battery" to current battery status.

8) Say "exit" to close the application.

4.2.1: Feature

4.3 Mic



Features of the Application:

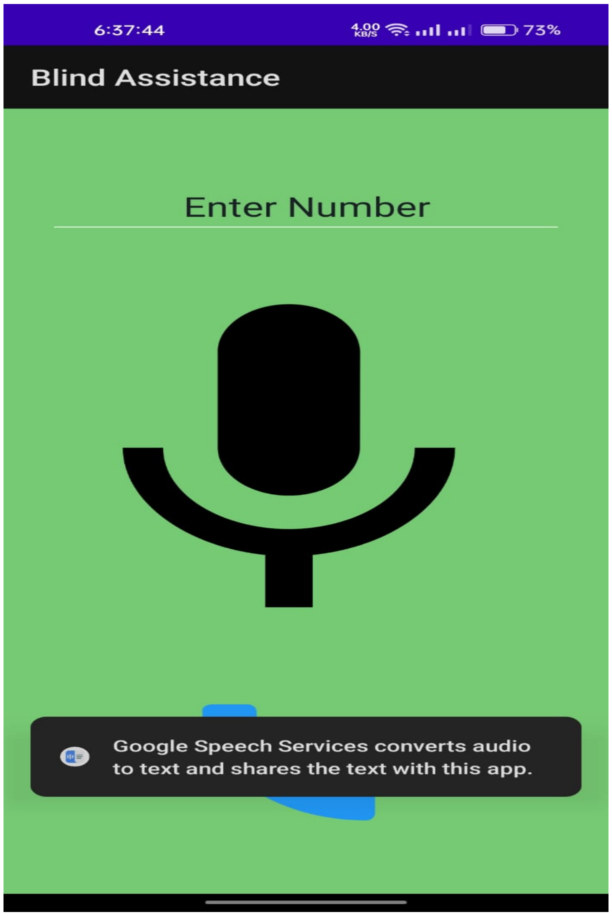
1) Say "Call" to make call

7) Say "Battery" to current battery status.

Google Speech Services converts audio to text and shares the text with this app.

4.3.1: Mic

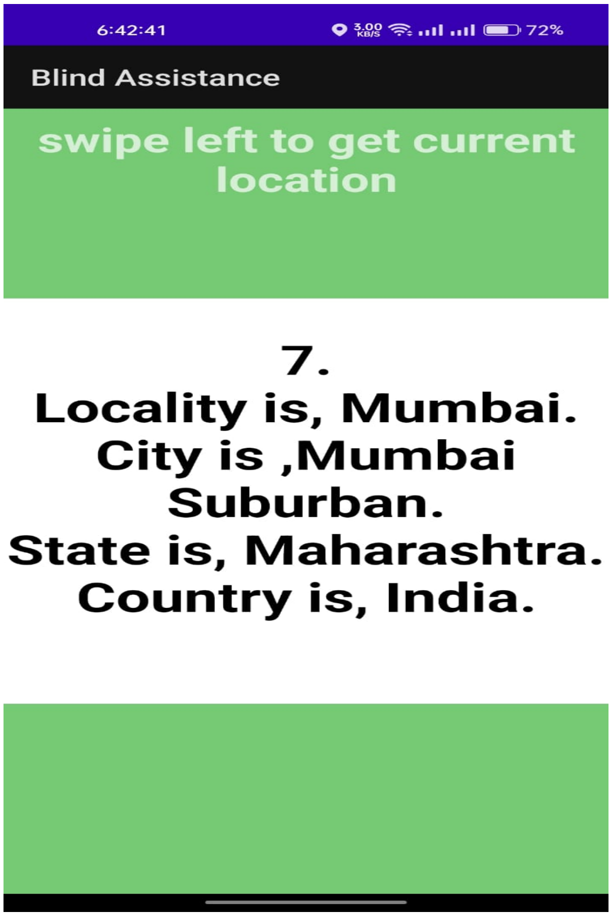
4.4 Call



Google Speech Services converts audio to text and shares the text with this app.

4.4.1: Call

4.5 Location



6:42:41

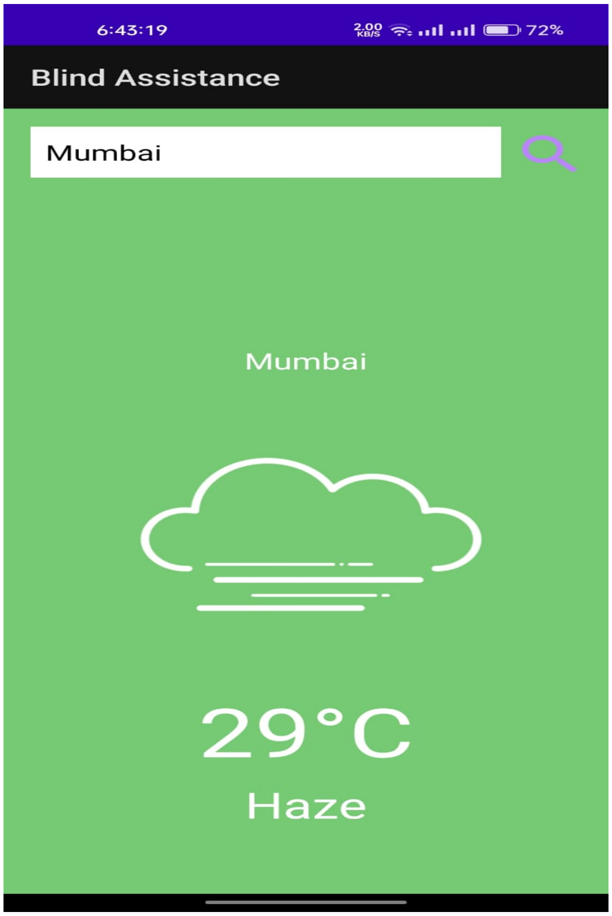
Blind Assistance

swipe left to get current location

7.
Locality is, Mumbai.
City is ,Mumbai Suburban.
State is, Maharashtra.
Country is, India.

4.5.1: Location

4.6 Weather



Mumbai

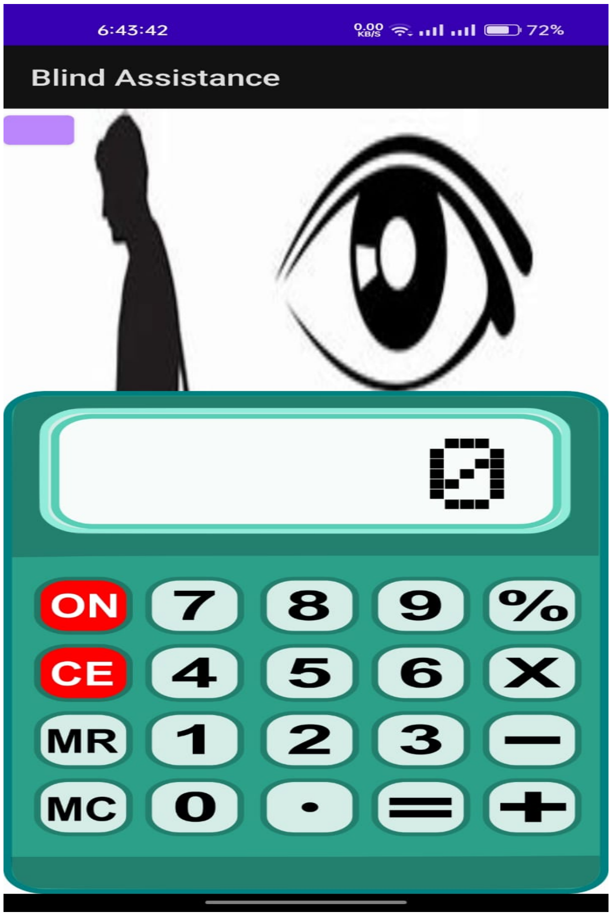
Mumbai

29°C

Haze

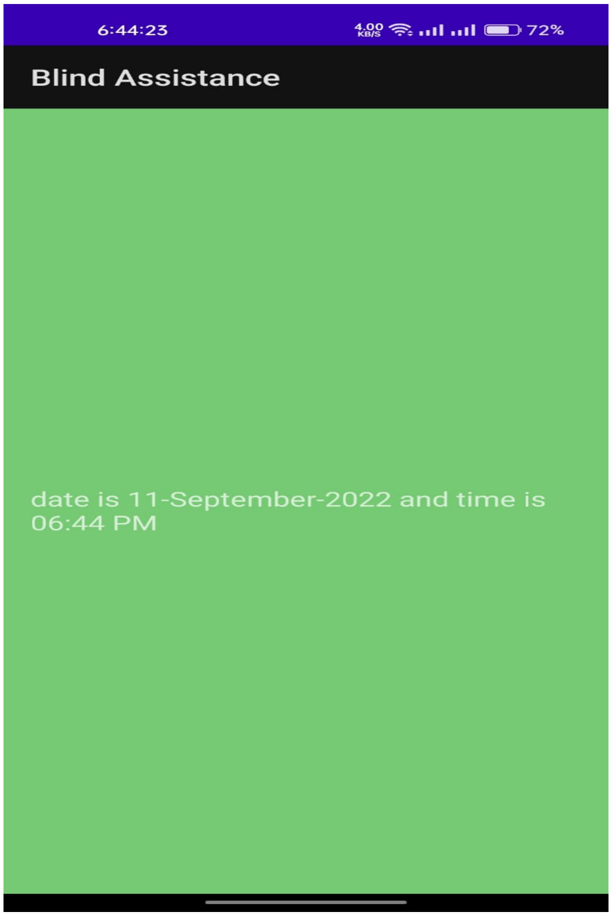
4.6.1: Weather

4.7 Calculator



4.7.1: Calculator

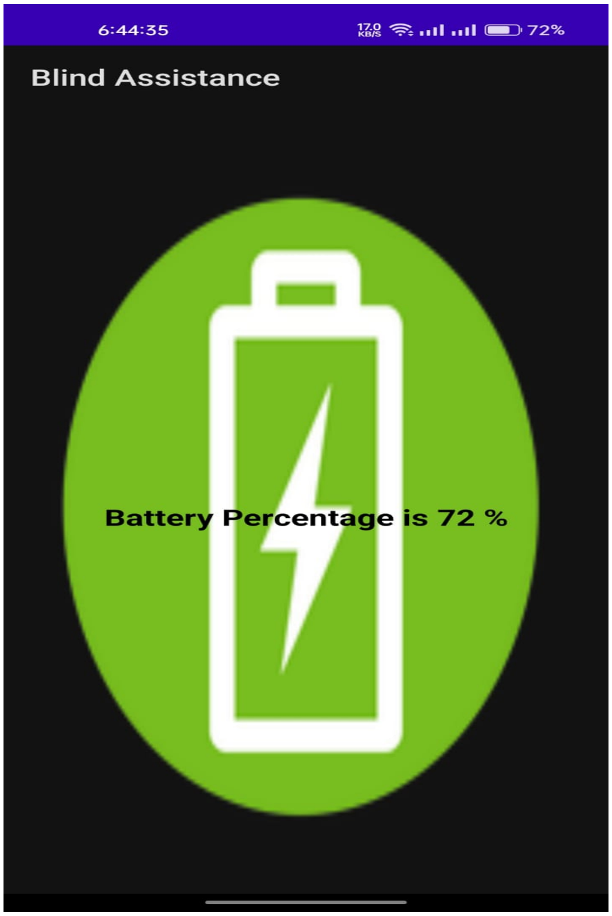
4.8 Date and Time



date is 11-September-2022 and time is 06:44 PM

4.8.1: Date and Time

4.9 Battery

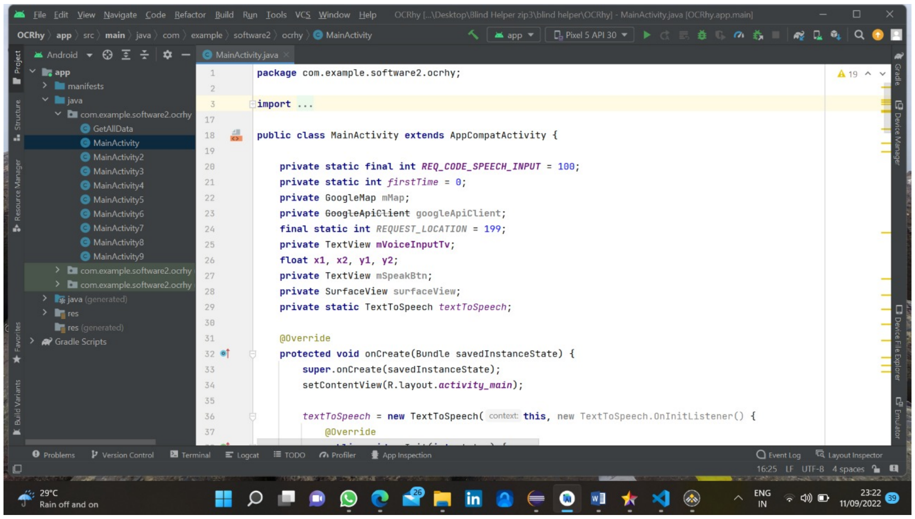


Blind Assistance

Battery Percentage is 72 %

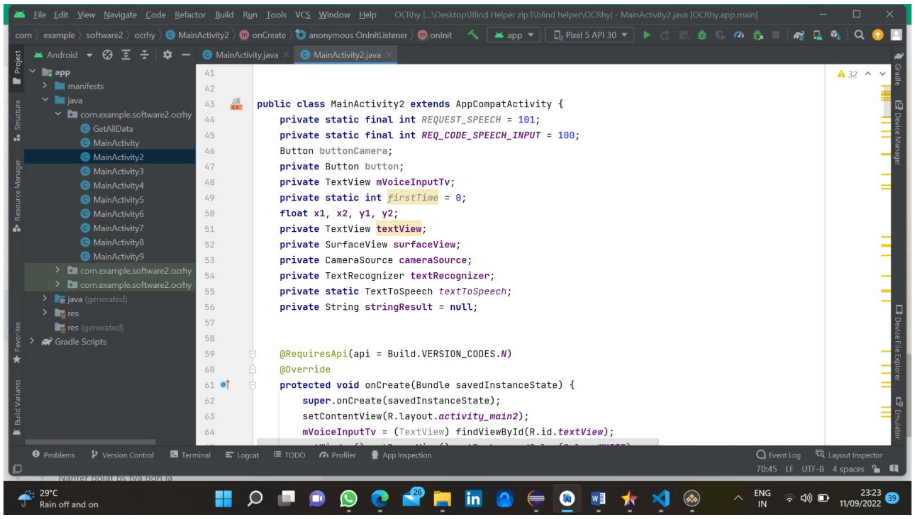
4.9.1: Battery

4.10 Code 1



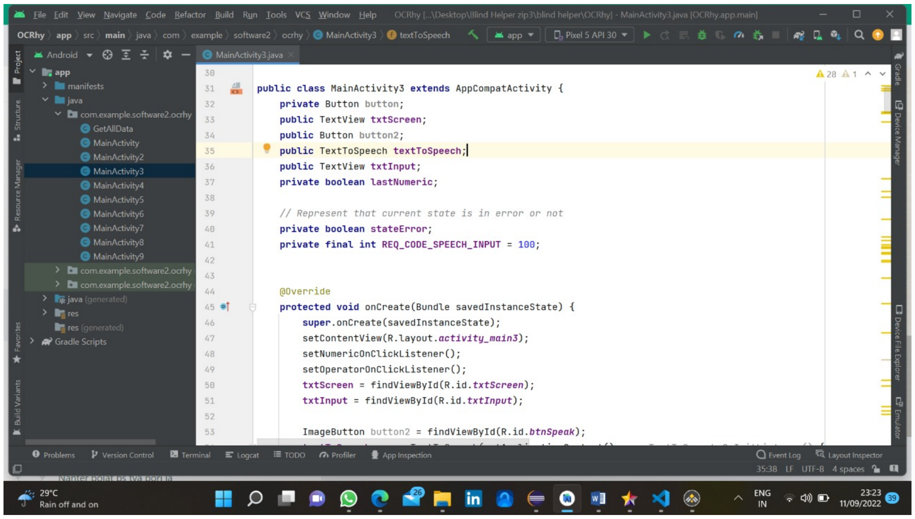
```
package com.example.software2.ocrhy;

import ...

public class MainActivity extends AppCompatActivity {

    private static final int REQ_CODE_SPEECH_INPUT = 100;
    private static int firstTime = 0;
    private GoogleMap mMap;
    private GoogleApiClient googleApiClient;
    final static int REQUEST_LOCATION = 199;
    private TextView mVoiceInputTv;
    float x1, x2, y1, y2;
    private TextView mSpeakBtn;
    private SurfaceView surfaceView;
    private static TextToSpeech textToSpeech;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        textToSpeech = new TextToSpeech( context: this, new TextToSpeech.OnInitListener() {
            @Override
```

4.11 Code 2



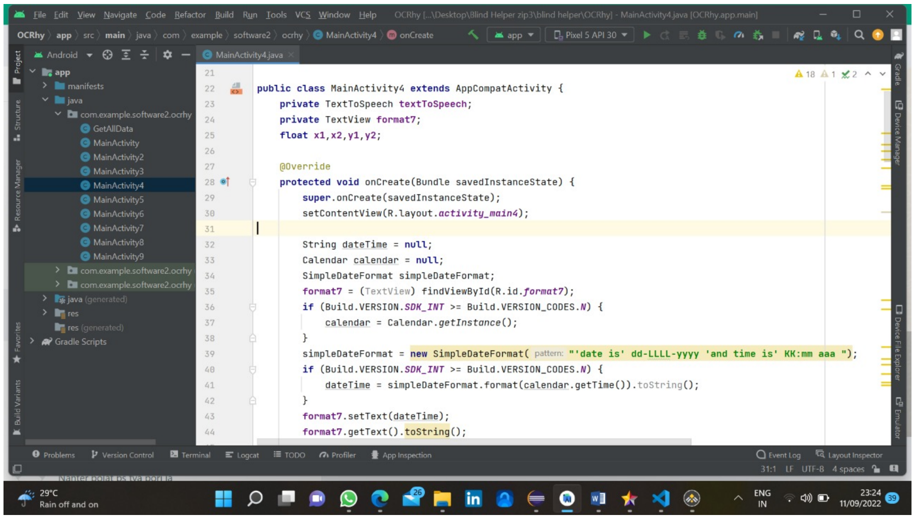
```

public class MainActivity2 extends AppCompatActivity {
    private static final int REQUEST_SPEECH = 101;
    private static final int REQ_CODE_SPEECH_INPUT = 100;
    Button buttonCamera;
    private Button button;
    private TextView mVoiceInputTv;
    private static int firstTime = 0;
    float x1, x2, y1, y2;
    private TextView textView;
    private SurfaceView surfaceView;
    private CameraSource cameraSource;
    private TextRecognizer textRecognizer;
    private static TextToSpeech textToSpeech;
    private String stringResult = null;


    @RequiresApi(api = Build.VERSION_CODES.N)
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        mVoiceInputTv = (TextView) findViewById(R.id.textView);
```

4.12 Code 3



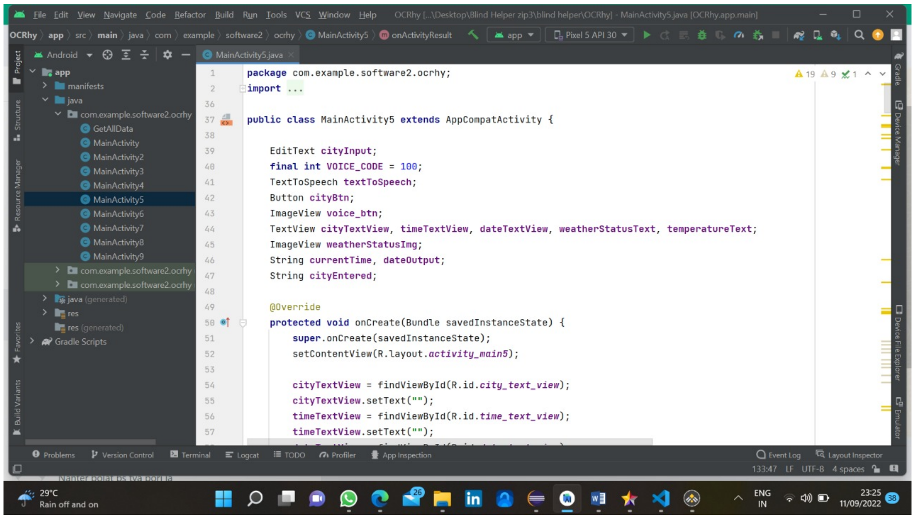
```java

public class MainActivity3 extends AppCompatActivity {
    private Button button;
    public TextView txtScreen;
    public Button button2;
    public TextToSpeech textToSpeech;
    public TextView txtInput;
    private boolean lastNumeric;

    // Represent that current state is in error or not
    private boolean stateError;
    private final int REQ_CODE_SPEECH_INPUT = 100;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main3);
        setNumericOnClickListener();
        setOperatorOnClickListener();
        txtScreen = findViewById(R.id.txtScreen);
        txtInput = findViewById(R.id.txtInput);

        ImageButton button2 = findViewById(R.id.btnSpeak);
```

4.13 Code 4



```java

public class MainActivity4 extends AppCompatActivity {
    private TextToSpeech textToSpeech;
    private TextView format7;
    float x1,x2,y1,y2;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main4);

        String dateTime = null;
        Calendar calendar = null;
        SimpleDateFormat simpleDateFormat;
        format7 = (TextView) findViewById(R.id.format7);
        if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.N) {
            calendar = Calendar.getInstance();
        }
        simpleDateFormat = new SimpleDateFormat( pattern: "'date is' dd-LLLL-yyyy 'and time is' KK:mm aaa ");
        if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.N) {
            dateTime = simpleDateFormat.format(calendar.getTime()).toString();
        }
        format7.setText(dateTime);
        format7.getText().toString();
```

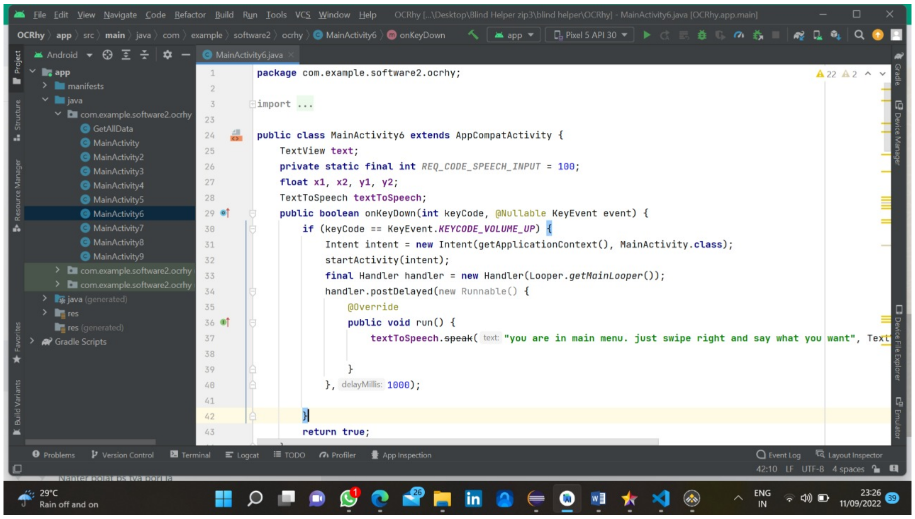
4.14 Code 5



OCRhy [...\Desktop\Blind Helper zip3\blind helper\OCRhy] - MainActivity5.java [OCRhy.app.main]
MainActivity5.java

```java
package com.example.software2.ocrhy;
import ...

public class MainActivity5 extends AppCompatActivity {

    EditText cityInput;
    final int VOICE_CODE = 100;
    TextToSpeech textToSpeech;
    Button cityBtn;
    ImageView voice_btn;
    TextView cityTextView, timeTextView, dateTextView, weatherStatusText, temperatureText;
    ImageView weatherStatusImg;
    String currentTime, dateOutput;
    String cityEntered;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main5);

        cityTextView = findViewById(R.id.city_text_view);
        cityTextView.setText("");
        timeTextView = findViewById(R.id.time_text_view);
        timeTextView.setText("");
```

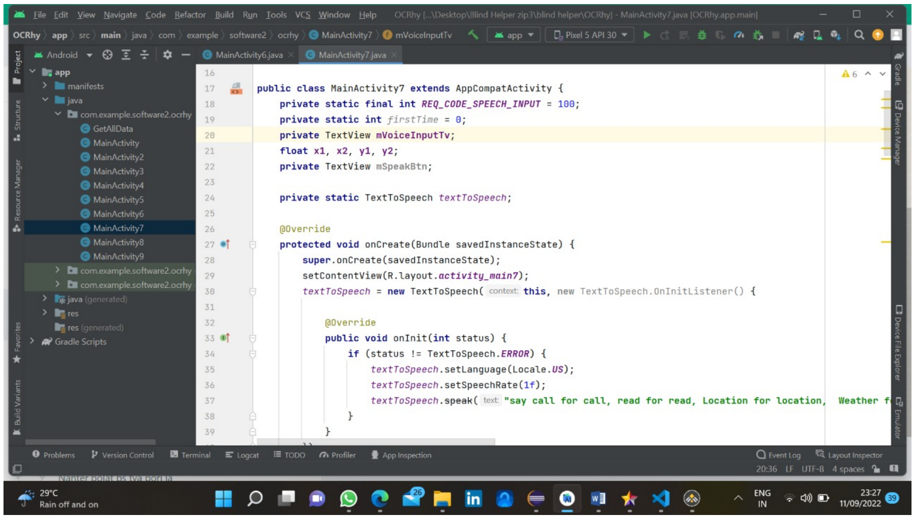
4.15 Code 6



OCRhy [...\Desktop\Blind Helper zip3\blind helper\OCRhy] - MainActivity6.java [OCRhy.app.main]
MainActivity6.java

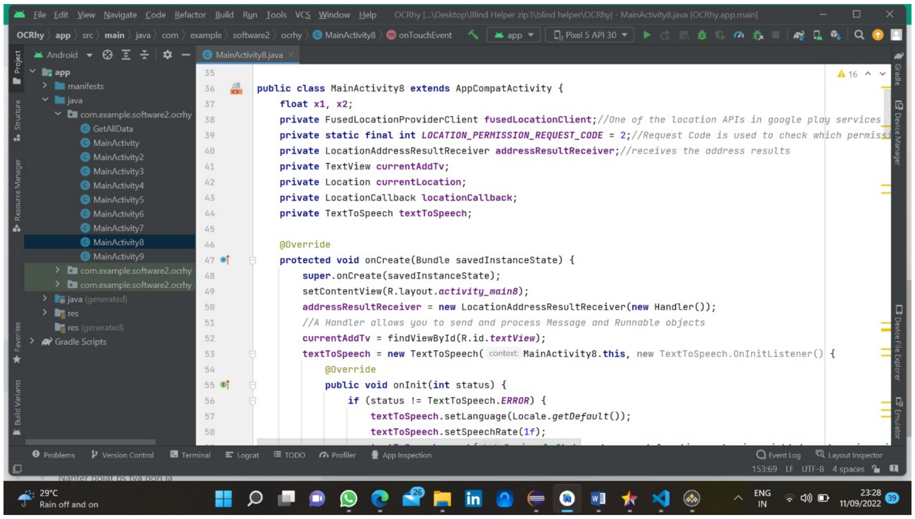
```java
package com.example.software2.ocrhy;

import ...

public class MainActivity6 extends AppCompatActivity {
    TextView text;
    private static final int REQ_CODE_SPEECH_INPUT = 100;
    float x1, x2, y1, y2;
    TextToSpeech textToSpeech;
    public boolean onKeyDown(int keyCode, @Nullable KeyEvent event) {
        if (keyCode == KeyEvent.KEYCODE_VOLUME_UP) {
            Intent intent = new Intent(getApplicationContext(), MainActivity.class);
            startActivity(intent);
            final Handler handler = new Handler(Looper.getMainLooper());
            handler.postDelayed(new Runnable() {
                @Override
                public void run() {
                    textToSpeech.speak( text: "you are in main menu. just swipe right and say what you want", Text

                }
            }, delayMillis: 1000);

        }
        return true;
```

4.16 Code 7


OCRhy [...\Desktop\Blind Helper zip3\blind helper\OCRhy] - MainActivity7.java [OCRhy.app.main]
MainActivity6.java
MainActivity7.java

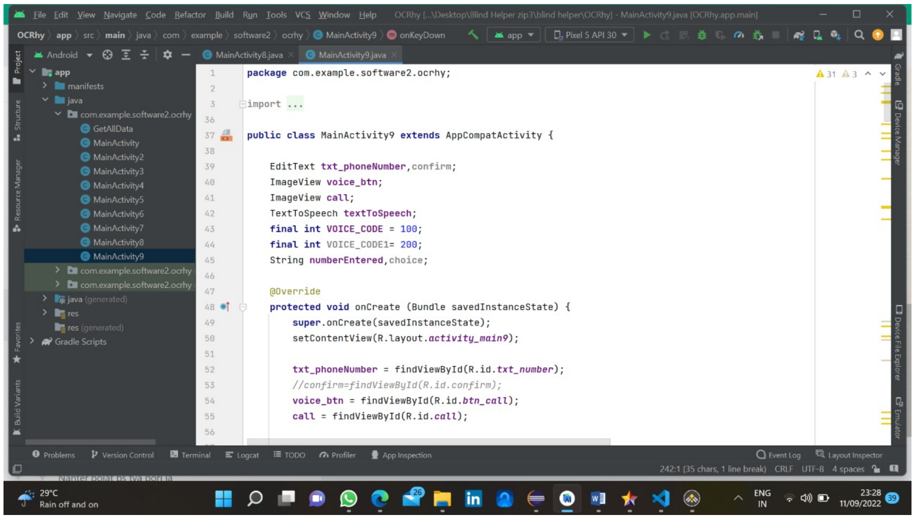
```java

public class MainActivity7 extends AppCompatActivity {
    private static final int REQ_CODE_SPEECH_INPUT = 100;
    private static int firstTime = 0;
    private TextView mVoiceInputTv;
    float x1, x2, y1, y2;
    private TextView mSpeakBtn;

    private static TextToSpeech textToSpeech;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main7);
        textToSpeech = new TextToSpeech( context: this, new TextToSpeech.OnInitListener() {

            @Override
            public void onInit(int status) {
                if (status != TextToSpeech.ERROR) {
                    textToSpeech.setLanguage(Locale.US);
                    textToSpeech.setSpeechRate(1f);
                    textToSpeech.speak( text: "say call for call, read for read, Location for location,  Weather f
                }
            }
```

4.17 Code 8


OCRhy [...\Desktop\Blind Helper zip3\blind helper\OCRhy] - MainActivity8.java [OCRhy.app.main]
MainActivity8.java

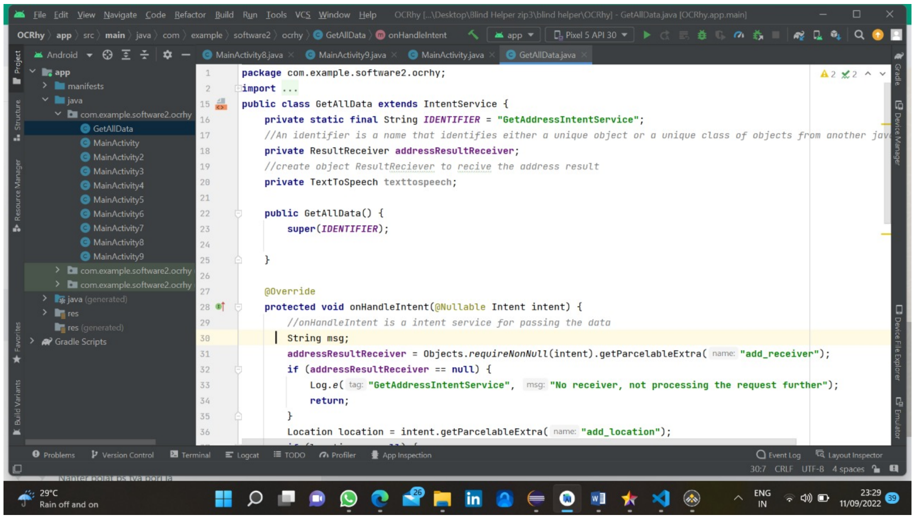
```java

public class MainActivity8 extends AppCompatActivity {
    float x1, x2;
    private FusedLocationProviderClient fusedLocationClient;//One of the location APIs in google play services
    private static final int LOCATION_PERMISSION_REQUEST_CODE = 2;//Request Code is used to check which permissi
    private LocationAddressResultReceiver addressResultReceiver;//receives the address results
    private TextView currentAddTv;
    private Location currentLocation;
    private LocationCallback locationCallback;
    private TextToSpeech textToSpeech;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main8);
        addressResultReceiver = new LocationAddressResultReceiver(new Handler());
        //A Handler allows you to send and process Message and Runnable objects
        currentAddTv = findViewById(R.id.textView);
        textToSpeech = new TextToSpeech( context: MainActivity8.this, new TextToSpeech.OnInitListener() {
            @Override
            public void onInit(int status) {
                if (status != TextToSpeech.ERROR) {
                    textToSpeech.setLanguage(Locale.getDefault());
                    textToSpeech.setSpeechRate(1f);
```

4.18 Code 9


OCRhy [...\Desktop\Blind Helper zip3\blind helper\OCRhy] - MainActivity9.java [OCRhy.app.main]
OCRhy › app › src › main › java › com › example › software2 › ocrhy › MainActivity9 › onKeyDown
MainActivity8.java
MainActivity9.java
GetAllData
MainActivity
MainActivity2
MainActivity3
MainActivity4
MainActivity5
MainActivity6
MainActivity7
MainActivity8
MainActivity9
Gradle Scripts

```java
package com.example.software2.ocrhy;

import ...

public class MainActivity9 extends AppCompatActivity {

    EditText txt_phoneNumber,confirm;
    ImageView voice_btn;
    ImageView call;
    TextToSpeech textToSpeech;
    final int VOICE_CODE = 100;
    final int VOICE_CODE1= 200;
    String numberEntered,choice;

    @Override
    protected void onCreate (Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main9);

        txt_phoneNumber = findViewById(R.id.txt_number);
        //confirm=findViewById(R.id.confirm);
        voice_btn = findViewById(R.id.btn_call);
        call = findViewById(R.id.call);

```

4.19 Code 10



```java
package com.example.software2.ocrhy;
import ...
public class GetAllData extends IntentService {
    private static final String IDENTIFIER = "GetAddressIntentService";
    //An identifier is a name that identifies either a unique object or a unique class of objects from another jav
    private ResultReceiver addressResultReceiver;
    //create object ResultReciever to recive the address result
    private TextToSpeech texttospeech;

    public GetAllData() {
        super(IDENTIFIER);

    }

    @Override
    protected void onHandleIntent(@Nullable Intent intent) {
        //onHandleIntent is a intent service for passing the data
        String msg;
        addressResultReceiver = Objects.requireNonNull(intent).getParcelableExtra("add_receiver");
        if (addressResultReceiver == null) {
            Log.e("GetAddressIntentService", "No receiver, not processing the request further");
            return;
        }
        Location location = intent.getParcelableExtra("add_location");
```

5 Test Cases

Table 6.1: Test Case -

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	Enter number to make call	User enter number	Able to place call	Able to place a call	Pass
2	Enter number to make call	User enter character	Unble to place call	Unble to place call	Pass
3	Permission for Location	User gives permission to check location	User get the current location.	User get the current location.	Pass
4	City for weather details	User entered city name	Gives Weather Details	Gives Weather Details	Pass
5	City for weather details	User entered inappropriate city name	System wont allow to give weather details	System wont allow to give weather details	Pass
6	Mathematical operation	Enter correct Mathematical operations	Shows appropriate result	Shows appropriate result	Pass

6 Limitations

- To use Basic Functionality it requires Permission for call,location,camera,Microphone.

7 Future Enhancements

- It can be further enhanced by using machine learning technology to add object detection functionality using the tensorflow model.
- Add reminder functionality.

8 User Manual

Part 1 – Call
After swiping right on the screen user has to say “read” then it will ask you want to read say yes for continue and no to return the main menu.

Part 2 – OCR reader
After swiping right on the screen user has to say “read” then it will ask you want to read say yes for continue and no to return the main menu.

Part 3 – Calculator
User has to say “calculator” after that user has to tap on the screen and say what to calculate then application will say the answer.

Part 4 – Location
In this user has to say location after that user will tap on the screen then it will say current location.

Part 5 – Weather
In this user will say “weather” and then say the name of the city. After that application will say the weather of that particular city.

Part 6 – Battery
To check the current phone battery status user has to say battery.

Part 7 – Time and Date
To check current time and date user has to say time and date.

9 Bibliography

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