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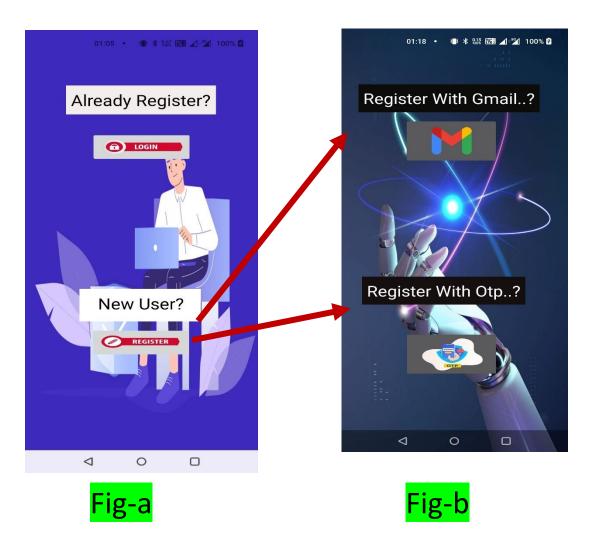
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PROJECT ON

ANDROID APP DEVELOPMENT

1.Registration Page

- 1 Here We Provide Two method For New Users
 - a) Register Via Otp(Phone)
 - b) Register Via Email



- For a New User Click For Register
- A Following Page Will be Open including Register With Email And Register With Otp
- Choose Your Preference And Register.

Fig b- XML Code For New User(ie-Register With Otp And Gmail)

```
<androidx.constraintlayout.widget.ConstraintLayout
   </TextView>
   </TextView>
```

```
android:layout_marginEnd="132dp"
android:layout_marginBottom="227dp"
android:scaleType="fitXY"
app:layout_constraintBottom_toTopOf="@+id/loginRedirectText5"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/loginRedirectText6"
app:srcCompat="@drawable/gmail" />

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</mai>

</mai>

</mai>

android:id="@+id/imageButton8"
android:layout_width="159dp"
android:layout_height="90dp"
android:layout_marginTop="17dp"
android:layout_marginBottom="108dp"
android:scaleType="fitXY"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.476"
app:layout_constraintTop_toBottomOf="@+id/loginRedirectText5"
app:srcCompat="@drawable/otp" />
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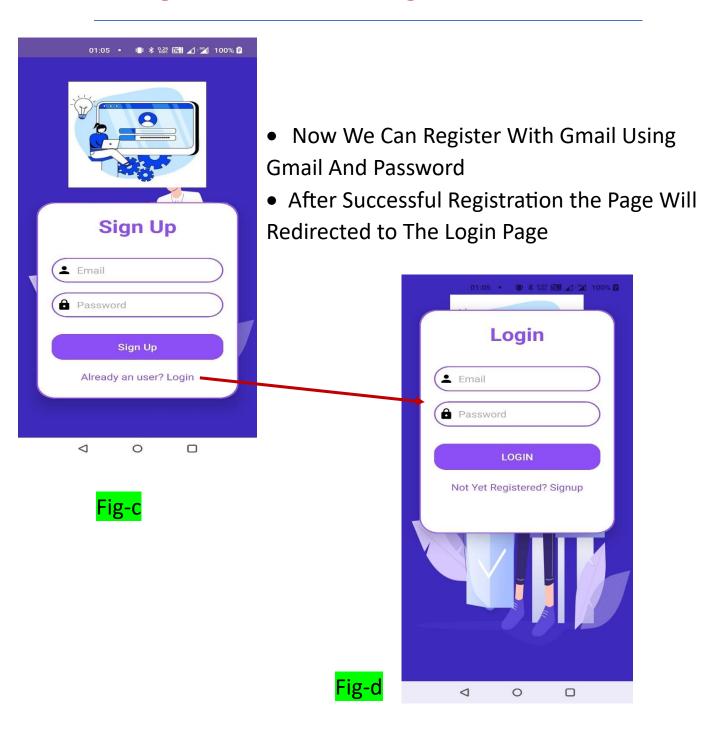
<
```

Fig b-Java Code For New User(ie-Register With Otp And Gmail)

```
package com.example.ankitapphome;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageButton;
import android.widget.TextView;
import androidx.activity.EdgeToEdge;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class Second extends AppCompatActivity {
    TextView t1,t2;
    ImageButton b1,b2;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_second);
        t1=(TextView)findViewById(R.id.loginRedirectText6);
        t2=(TextView)findViewById(R.id.loginRedirectText5);
```

2. Registration And Login With Email



- After Login into the Application. It we Redirect to You
 On the Welcome Screen of the Application
- Now the Process for OTP Will be..

Fig-c XML Code For SignUp(Register With Gmail)

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    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:layout width="match parent"
    android:layout height="match parent"
    android:orientation="vertical"
    android:gravity="center"
    android:background="@drawable/log"
    tools:context=".MainActivity">
    <ImageView</pre>
        android:id="@+id/imageView2"
        android:layout width="383dp"
        android:layout height="214dp"
        app:srcCompat="@drawable/logos" />
    <androidx.cardview.widget.CardView</pre>
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout margin="30dp"
        app:cardCornerRadius="30dp"
        app:cardElevation="20dp">
        <LinearLayout</pre>
            android:id="@+id/textview4"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout gravity="center horizontal"
            android:background="@drawable/custom edittext"
            android:orientation="vertical"
            android:padding="24dp">
            <TextView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Sign Up"
                android:textAlignment="center"
                android:textColor="@color/lavender"
                android:textSize="36sp"
                android:textStyle="bold" />
            <EditText
                android:id="@+id/login email2"
                android:layout width="match parent"
                android:layout_height="50dp"
                android:layout marginTop="40dp"
                android:background="@drawable/custom edittext"
                android:drawableLeft="@drawable/baseline person 24"
                android:drawablePadding="8dp"
                android:hint="Email"
                android:padding="8dp"
                android:textColor="@color/black" />
            <EditText
                android:id="@+id/login password2"
```

```
android:layout width="match parent"
                android:layout height="50dp"
                android:layout marginTop="20dp"
                android:background="@drawable/custom edittext"
                android:drawableLeft="@drawable/baseline lock 24"
                android:drawablePadding="8dp"
                android:hint="Password"
                android:padding="8dp"
                android:textColor="@color/black" />
            <Button
                android:id="@+id/login button2"
                android:layout_width="match_parent"
                android:layout_height="60dp"
                android:layout marginTop="30dp"
                android:backgroundTint="@color/lavender"
                android:text="Sign Up"
                android:textSize="18sp"
                app:cornerRadius="20dp" />
            <TextView
                android:id="@+id/loginRedirectText4"
                android:layout width="wrap content"
                android:layout_height="wrap_content"
                android:layout gravity="center"
                android:layout_marginTop="10dp"
                android:padding="8dp"
                android:text="Already an user? Login"
                android:textColor="@color/lavender"
                android:textSize="18sp" />
        </LinearLayout>
    </androidx.cardview.widget.CardView>
</LinearLayout>
```

Fig-c Java Code For SignUp(Register With Gmail)

```
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.text.InputType;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
```

package com.example.ankitapphome;

```
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
public class MainActivity extends AppCompatActivity {
    private FirebaseAuth auth;
    private EditText signupEmail, signupPassword;
    private Button b1;
    private TextView loginRedirectText;
    @SuppressLint("MissingInflatedId")
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        auth = FirebaseAuth.getInstance();
        signupEmail = findViewById(R.id.login email2);
        signupPassword = findViewById(R.id.login password2);
signupPassword.setInputType(InputType.TYPE CLASS TEXT|InputType.TYPE TEXT V
ARIATION PASSWORD);
        b1 = findViewById(R.id.login button2);
        loginRedirectText = findViewById(R.id.loginRedirectText4);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String user = signupEmail.getText().toString().trim();
                String pass = signupPassword.getText().toString().trim();
                if (user.isEmpty()){
                    signupEmail.setError("Email cannot be empty");
                if (pass.isEmpty()) {
                    signupPassword.setError("Password cannot be empty");
                } else{
                    auth.createUserWithEmailAndPassword(user,
pass).addOnCompleteListener(new OnCompleteListener<AuthResult>() {
                        @Override
                        public void onComplete(@NonNull Task<AuthResult>
task) {
                            if (task.isSuccessful()) {
                                Toast.makeText(MainActivity.this, "SignUp
Successful Now Login ", Toast. LENGTH SHORT) . show();
                               Intent j=new Intent (MainActivity.this,
Login.class);
                               startActivity(j);
                               finish();
                            } else {
                                Toast.makeText(MainActivity.this, "SignUp
Failed" + task.getException().getMessage(), Toast.LENGTH SHORT).show();
```

```
}
}
});

});

loginRedirectText.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent l=new Intent(MainActivity.this, Login.class);
        startActivity(l);
        finish();
    }
});
```

Fig-d XML Code For Login(Login With Gmail)

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main12"
    android:layout width="match parent"
    android:layout height="match parent"
    android:background="@drawable/log"
    tools:context=".Login">
    <ImageView</pre>
        android:id="@+id/imageView2"
        android:layout_width="383dp"
        android:layout_height="214dp"
        app:srcCompat="@drawable/logos" />
    <androidx.cardview.widget.CardView</pre>
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="30dp"
        app:cardCornerRadius="30dp"
        app:cardElevation="20dp">
        <LinearLayout
            android:id="@+id/textview4"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center horizontal"
            android:background="@drawable/custom edittext"
            android:orientation="vertical"
            android:padding="24dp">
```

```
<TextView
   android:layout width="match parent"
    android:layout height="wrap content"
    android:text="Login"
   android:textAlignment="center"
   android:textColor="@color/lavender"
    android:textSize="36sp"
    android:textStyle="bold" />
<EditText
   android:id="@+id/login email2"
    android:layout_width="match_parent"
   android:layout_height="50dp"
   android:layout marginTop="40dp"
   android:background="@drawable/custom edittext"
   android:drawableLeft="@drawable/baseline person 24"
   android:drawablePadding="8dp"
   android:hint="Email"
   android:padding="8dp"
   android:textColor="@color/black" />
<EditText
   android:id="@+id/login password2"
   android:layout width="match parent"
   android:layout height="50dp"
   android:layout marginTop="20dp"
   android:background="@drawable/custom edittext"
   android:drawableLeft="@drawable/baseline lock 24"
   android:drawablePadding="8dp"
   android:hint="Password"
    android:padding="8dp"
   android:textColor="@color/black" />
<Button
   android:id="@+id/login button2"
   android:layout width="match parent"
   android:layout height="60dp"
   android:layout marginTop="30dp"
   android:backgroundTint="@color/lavender"
   android:text="LOGIN"
    android:textSize="18sp"
   app:cornerRadius="20dp" />
<TextView
   android:id="@+id/loginRedirectText4"
    android:layout width="wrap content"
   android:layout height="wrap content"
   android:layout_gravity="center"
   android:layout marginTop="10dp"
   android:padding="8dp"
   android:text="Not Yet Registered? Signup"
    android:textColor="@color/lavender"
   android:textSize="18sp" />
<ProgressBar
    android:id="@+id/progressBar"
    style="?android:attr/progressBarStyle"
    android:layout_width="293dp"
    android:layout height="48dp"
    android:visibility="invisible" />
```

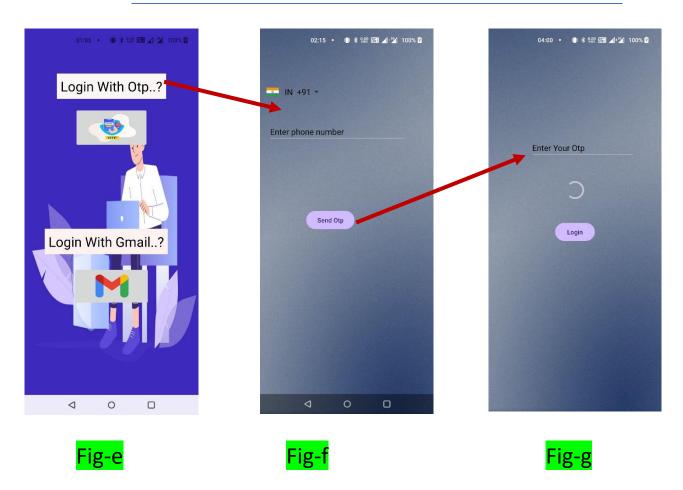
```
</LinearLayout>
  </androidx.cardview.widget.CardView>
</RelativeLayout>
```

Fig-d Java Code For Login(Login With Gmail)

```
package com.example.ankitapphome;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.text.InputType;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ProgressBar;
import android.widget.TextView;
import android.widget.Toast;
import androidx.activity.EdgeToEdge;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
public class Login extends AppCompatActivity {
    TextView t1;
   Button b1;
   EditText e1,e2;
   FirebaseAuth firebaseAuth;
    ProgressBar pb;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity login);
        t1=(TextView) findViewById(R.id.loginRedirectText4);
        b1=(Button) findViewById(R.id.login button2);
        e1=(EditText)findViewById(R.id.login email2);
        pb=(ProgressBar) findViewById(R.id.progressBar);
        e2=(EditText)findViewById(R.id.login password2);
e2.setInputType(InputType.TYPE_CLASS_TEXT|InputType.TYPE TEXT VARIATION PAS
SWORD);
        firebaseAuth=FirebaseAuth.getInstance();
```

```
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        t1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new Intent(Login.this, MainActivity.class);
                startActivity(i);
            }
        });b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String s1=e1.getText().toString().trim();
                String s2=e2.getText().toString();
                pb.setVisibility(View.VISIBLE);
                if(s1.isEmpty()){
                    e1.setError("Fill Email");
                    return;
                }else {
                    if (s2.isEmpty()) {
                        e2.setError("Fill Password");
                        return;
                    }else {
                        pb.setVisibility(View.VISIBLE);
firebaseAuth.signInWithEmailAndPassword(s1,s2).addOnCompleteListener(new
OnCompleteListener<AuthResult>() {
                            @Override
                            public void onComplete(@NonNull
Task<AuthResult> task) {
                            if(task.isSuccessful()){
                                pb.setVisibility(View.INVISIBLE);
                                Toast.makeText(Login.this, "Login
Successfull", Toast.LENGTH SHORT).show();
                                Intent k=new Intent(Login.this,
Fifth.class);
                                startActivity(k);
                                finish();
                            }else {
                                pb.setVisibility(View.INVISIBLE);
                                Toast.makeText(Login.this, "Error
Password", Toast.LENGTH SHORT).show();
                            }
                        });
                    }
                }
       });
   }
}
```

3.Login With OTP



- Login With OTP is one of the best features
- Secure login system using OTP.
- This helps for enhance security of user authentication

2 Working Of Login

- 1. User enters their phone number.
- 2. The system sends an OTP to the entered phone number.
- 3. User inputs the received OTP.
- 4. The system verifies the OTP.
- 5. Upon successful verification, the user is logged in.

Fig-e XML for Login(Login With OTP and Gmail)

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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/main12"
    android:background="@drawable/log"
    android:layout width="match parent"
    android:layout height="match parent"
    tools:context=".Fourth">
    <TextView
        android:id="@+id/loginRedirectText7"
        android:layout width="wrap content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:layout marginTop="59dp"
        android:layout marginBottom="21dp"
        android:background="#FBF6F6"
        android:padding="8dp"
        android:text="Login With Otp..?"
        android:textColor="@color/black"
        android:textSize="30sp"
        app:layout constraintBottom toTopOf="@+id/imageButton10"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintStart toStartOf="parent"
        app:layout_constraintTop toTopOf="parent">
    </TextView>
    <TextView
        android:id="@+id/loginRedirectText8"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:layout marginTop="180dp"
        android:layout marginEnd="68dp"
        android:background="#FBF2F2"
        android:padding="8dp"
        android:text="Login With Gmail..?"
        android:textColor="@color/black"
        android:textSize="30sp"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintTop toBottomOf="@+id/imageButton10">
    </TextView>
    <ImageButton</pre>
        android:id="@+id/imageButton9"
        android:layout width="168dp"
        android:layout height="84dp"
        android:layout marginTop="18dp"
        android:layout marginBottom="77dp"
        android:scaleType="fitXY"
```

```
app:layout constraintBottom toBottomOf="parent"
   app:layout constraintEnd toEndOf="parent"
   app:layout constraintStart toStartOf="parent"
   app:layout constraintTop toBottomOf="@+id/loginRedirectText8"
   app:layout constraintVertical bias="0.079"
   app:srcCompat="@drawable/gmail">
</ImageButton>
<ImageButton</pre>
   android:id="@+id/imageButton10"
   android:layout width="162dp"
   android:layout_height="87dp"
   android:layout_marginTop="20dp"
   android:layout marginBottom="266dp"
   android:scaleType="fitXY"
   app:layout constraintBottom toTopOf="@+id/loginRedirectText8"
   app:layout_constraintEnd_toEndOf="parent"
   app:layout constraintStart toStartOf="parent"
   app:layout constraintTop toBottomOf="@+id/loginRedirectText7"
   app:srcCompat="@drawable/otp">
</ImageButton>
```

</androidx.constraintlayout.widget.ConstraintLayout>

Fig-e Java Code for Login(Login With OTP and Gmail)

```
package com.example.ankitapphome;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageButton;
import android.widget.TextView;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Fourth extends AppCompatActivity {
    TextView t1, t2;
    ImageButton b1,b2;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity fourth);
        t1=(TextView) findViewById(R.id.loginRedirectText7);
        t2=(TextView)findViewById(R.id.loginRedirectText8);
        b1=(ImageButton) findViewById(R.id.imageButton9);
        b2=(ImageButton)findViewById(R.id.imageButton10);
```

```
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new Intent(Fourth.this, Login.class);
                startActivity(i);
                finish();
            }
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent j=new Intent(Fourth.this, Third.class);
                startActivity(j);
                finish();
            }
       });
   }
}
```

Fig-f XML for Enter Mobile(For OTP)

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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/main12"
    android:background="@drawable/call"
    android:layout width="match parent"
    android:layout height="match parent"
    tools:context=".Third">
    <EditText
        android:id="@+id/editTextPhoneNumber26"
        android:layout_width="306dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="32dp"
        android:layout_marginTop="40dp"
        android:layout_marginEnd="73dp"
        android:layout marginBottom="36dp"
        android:hint="Enter phone number"
        android:inputType="phone"
        android:textColor="#F1F1EB"
        android:textColorHint="#100F0F"
```

```
app:layout constraintBottom toTopOf="@+id/buttonCall"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout_constraintTop toBottomOf="@+id/cpp2" />
<com.hbb20.CountryCodePicker</pre>
    android:id="@+id/cpp2"
    android:layout_width="307dp"
    android:layout_height="46dp"
    android:layout_marginStart="17dp"
    android:layout_marginTop="80dp"
    android:layout_marginEnd="71dp"
    android:layout_marginBottom="9dp"
    app:layout_constraintBottom_toTopOf="@+id/editTextPhoneNumber26"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal bias="1.0"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.0" />
<ProgressBar
   android:id="@+id/progressBar2"
    style="?android:attr/progressBarStyle"
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:layout marginStart="156dp"
   android:layout_marginTop="30dp"
   android:layout_marginEnd="207dp"
   android:layout_marginBottom="53dp"
    android:visibility="invisible"
    app:layout constraintBottom toTopOf="@+id/button18"
    app:layout constraintEnd toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/editTextPhoneNumber26" />
<Button
   android:id="@+id/button18"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="129dp"
    android:layout marginEnd="175dp"
    android:text="Send Otp"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="1.0"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.499" />
<Button
    android:id="@+id/button24"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:layout_marginStart="135dp"
    android:layout marginTop="62dp"
    android:layout marginEnd="185dp"
    android:layout marginBottom="232dp"
    android:text="Exit"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
```

Fig-f Java Code for Enter Mobile(For OTP)

```
package com.example.ankitapphome;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ProgressBar;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import com.hbb20.CountryCodePicker;
public class Third extends AppCompatActivity {
   EditText e1;
   CountryCodePicker cpp;
   Button b1,b2;
   ProgressBar pb;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity third);
        e1=(EditText) findViewById(R.id.editTextPhoneNumber26);
        pb=(ProgressBar) findViewById(R.id.progressBar2);
        cpp=(CountryCodePicker)findViewById(R.id.cpp2);
        b2=(Button)findViewById(R.id.button24);
        cpp.registerCarrierNumberEditText(e1);
        b1=(Button)findViewById(R.id.button18);
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                pb.setVisibility(View.VISIBLE);
```

```
Intent i=new Intent(Third.this,OtpVerify.class);
    i.putExtra("mobile",cpp.getFullNumberWithPlus().trim());
    startActivity(i);
}
});
b2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent k=new Intent(Third.this, Login.class);
        startActivity(k);
        finish();
}
});
}
```

Fig-g XML for Submit OTP

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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/main"
    android:background="@drawable/call"
    android:layout width="match parent"
    android:layout height="match parent"
    tools:context=".OtpVerify">
    <EditText
        android:id="@+id/editTextText2"
        android:layout width="231dp"
        android:layout height="wrap content"
        android:layout alignParentStart="true"
        android:layout alignParentTop="true"
        android:layout marginStart="93dp"
        android:layout marginTop="162dp"
        android:layout marginBottom="100dp"
        android:ems="1\overline{0}"
        android:hint="Enter Your Otp"
        android:inputType="text"
        android:textColorHint="#070606"
        app:layout constraintBottom toTopOf="@+id/button19"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal bias="0.0"
        app:layout_constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent" />
        android:id="@+id/button19"
        android:layout width="wrap content"
        android:layout_height="wrap content"
        android:layout marginBottom="376dp"
        android:text="Login"
        app:layout constraintBottom toBottomOf="parent"
```

```
app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent" />

<ProgressBar
    android:id="@+id/progressBar3"
    style="?android:attr/progressBarStyle"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="27dp"
    android:layout_marginBottom="25dp"
    app:layout_constraintBottom_toTopOf="@+id/button19"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextText2" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Fig-g Java Code for Submit OTP

```
package com.example.ankitapphome;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ProgressBar;
import android.widget.Toast;
import android.credentials.Credential;
import androidx.activity.EdgeToEdge;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.FirebaseException;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.PhoneAuthCredential;
import com.google.firebase.auth.PhoneAuthProvider;
import java.util.concurrent.TimeUnit;
public class OtpVerify extends AppCompatActivity {
    Button b1;
    ProgressBar pb;
    EditText e1;
    String phone;
     String otp;
     FirebaseAuth firebaseAuth;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
```

```
setContentView(R.layout.activity otp verify);
        phone=getIntent().getStringExtra("mobile").toString();
        e1=(EditText) findViewById(R.id.editTextText2);
        pb=(ProgressBar) findViewById(R.id.progressBar3);
        b1=(Button) findViewById(R.id.button19);
        firebaseAuth=FirebaseAuth.getInstance();
        genotp();
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String s1=e1.getText().toString().trim();
                //PhoneAuthCredential credential=
PhoneAuthProvider.getCredential(otp,s1);
                //SigninWithPhoneCredential(credential);
                //PhoneAuthCredential
credential=PhoneAuthProvider.getCredential(otp,s1);
                if (s1.isEmpty())
                    Toast.makeText(OtpVerify.this, "Fill Otp",
Toast.LENGTH SHORT).show();
                else
                    if(s1.length()!=6)
                        Toast.makeText(OtpVerify.this, "bad",
Toast.LENGTH SHORT).show();
                    }
                    else
                        PhoneAuthCredential credential=
PhoneAuthProvider.getCredential(otp,s1);
                        SigninWithPhoneCredential(credential);
                }
            }
        });
    }private void genotp()
        PhoneAuthProvider.getInstance().verifyPhoneNumber(
                phone,
                60,
                TimeUnit. SECONDS,
                new PhoneAuthProvider.OnVerificationStateChangedCallbacks()
{
                    @Override
                    public void onCodeSent(@NonNull String s, @NonNull
PhoneAuthProvider.ForceResendingToken forceResendingToken) {
                        super.onCodeSent(s, forceResendingToken);
                        otp=s;
                    }
```

```
@Override
                    public void onVerificationCompleted(@NonNull
PhoneAuthCredential phoneAuthCredential) {
                        SigninWithPhoneCredential(phoneAuthCredential);
                    @Override
                    public void onVerificationFailed(@NonNull
FirebaseException e) {
                        Toast.makeText(OtpVerify.this, "Otp Mismatched",
Toast.LENGTH SHORT).show();
                    }
        );
    }private void SigninWithPhoneCredential(PhoneAuthCredential
credential) {
        pb.setVisibility(View.VISIBLE);
firebaseAuth.signInWithCredential(credential).addOnCompleteListener(new
OnCompleteListener<AuthResult>() {
            @Override
            public void onComplete(@NonNull Task<AuthResult> task) {
                if (task.isSuccessful()){
                    pb.setVisibility(View.INVISIBLE);
                    Toast.makeText(OtpVerify.this, "Login Successfull",
Toast.LENGTH SHORT).show();
                    Intent j=new Intent(OtpVerify.this,Fifth.class);
                    startActivity(j);
                    finish();
                }else {
                    pb.setVisibility(View.INVISIBLE);
                    Toast.makeText(OtpVerify.this, "Sorry",
Toast.LENGTH SHORT).show();
                }
       });
   }
}
```

4. Welcome Screen



- In mobile applications, user registration is a crucial feature that allows users to create an account to access personalized services.
- Backend integration for storing user data and validation mechanisms to ensure data accuracy.

Diagram Working

- 1)Open the registration form
- 2) Enters their details (name, email, password, Phone).
- 3) system validates the input
- 4) Upon successful validation, the data is sent to the backend server.

Fig h

- 5) The server stores the data in the database.
- 6) user is notified of successful registration of form
- 7) After that user redirect in the application

Fig h Xml for Welcome Screen

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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/main12"
    android:background="@drawable/home"
    android:layout width="match parent"
    android:layout height="match parent"
    tools:context=".Fifth">
    <ImageView</pre>
        android:id="@+id/imageView3"
        android:layout width="413dp"
        android:layout height="208dp"
        android:layout marginBottom="12dp"
        android:scaleType="fitXY"
        app:layout constraintBottom toTopOf="@+id/textView10"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:srcCompat="@drawable/wel" />
    <EditText
        android:id="@+id/editTextText10"
        android:layout width="380dp"
        android:layout height="wrap content"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_marginStart="12dp"
        android:layout marginEnd="19dp"
        android:ems="10"
        android:hint="Enter Your Gmail"
        android:inputType="text"
        android:textColorHint="#100707"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout constraintStart toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout constraintVertical bias="0.513">
    </EditText>
    <EditText
        android:id="@+id/editTextText11"
        android:layout width="380dp"
        android:layout height="wrap content"
        android:layout alignParentStart="true"
        android:layout alignParentTop="true"
        android:layout marginStart="12dp"
        android:layout marginEnd="19dp"
        android:ems="10"
        android:hint="Enter Your Name"
        android:inputType="text"
        android:textColorHint="#100707"
        android:textStyle="bold"
```

```
app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout_constraintVertical bias="0.421">
</EditText>
<EditText
    android:id="@+id/editTextText12"
    android:layout width="380dp"
    android:layout_height="wrap_content"
    android:layout alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_marginStart="12dp"
   android:layout marginEnd="19dp"
   android:ems="10"
   android:hint="Enter Your Phone"
   android:inputType="text"
   android:textColorHint="#100707"
   android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.602">
</EditText>
<EditText
   android:id="@+id/editTextText13"
    android:layout width="368dp"
   android:layout height="113dp"
   android:layout alignParentStart="true"
   android:layout alignParentTop="true"
   android:layout marginStart="16dp"
   android:layout marginEnd="27dp"
   android:ems="10"
   android:hint="Enter Your Suggestion"
   android:inputType="text"
   android:textColorHint="#100707"
    android:textStyle="bold"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.78">
</EditText>
<TextView
    android:id="@+id/textView10"
    android:layout width="162dp"
    android:layout height="34dp"
    android:layout marginStart="45dp"
    android:layout marginTop="12dp"
    android:layout marginEnd="53dp"
    android:layout marginBottom="35dp"
    android:background="#111517"
    android:text="
                     Fill Form "
    android:textColor="@color/white"
```

```
android:textSize="20sp"
    app:layout constraintBottom toTopOf="@+id/editTextText11"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/imageView3" />
<Button
    android:id="@+id/button12"
    android:layout width="wrap content"
    android:layout_height="wrap content"
    android:layout_marginTop="8dp"
    android:layout marginBottom="80dp"
    android:text="Submit "
    app:layout_constraintBottom toBottomOf="parent"
    app:layout_constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.143"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/editTextText13" />
<But.ton
   android:id="@+id/button13"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
   android:layout_marginStart="108dp"
   android:layout marginTop="8dp"
   android:layout marginEnd="53dp"
   android:layout marginBottom="80dp"
   android:text="View App"
   app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout_constraintStart toEndOf="@+id/button12"
    app:layout constraintTop toBottomOf="@+id/editTextText13" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.ankitapphome;

Fig h Java Code for Welcome Screen

```
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
```

```
public class Fifth extends AppCompatActivity {
    EditText e1, e2, e3, e4;
   Button b1,b2;
    FirebaseDatabase firebaseDatabase;
    DatabaseReference databaseReference;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity fifth);
        e1=(EditText) findViewById(R.id.editTextText10);
        e2=(EditText) findViewById(R.id.editTextText11);
        e3=(EditText)findViewById(R.id.editTextText12);
        e4=(EditText) findViewById(R.id.editTextText13);
        b1=(Button) findViewById(R.id.button12);
        b2=(Button)findViewById(R.id.button13);
        firebaseDatabase=FirebaseDatabase.getInstance();
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                databaseReference=firebaseDatabase.getReference("Users");
                String s1=e1.getText().toString();
                String s2=e2.getText().toString();
                String s3=e3.getText().toString();
                String s4=e4.getText().toString();
                if (s3.length()!=10){
                    Toast.makeText(Fifth.this, "Enter Valid Number",
Toast.LENGTH SHORT).show();
                }else {
                    Users users=new Users(s1,s2,s3,s4);
                    databaseReference.setValue(users);
                    databaseReference.child(s1).setValue(users);
                }
        });b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new Intent(Fifth.this, Seven.class);
                startActivity(i);
                finish();
       });
   }
}
```

5.Home Screen



Project Report: Android Home Activity with Multiple Functionalities

1. Introduction:

This project demonstrates a basic Android application featuring a home screen that provides access to various functionalities such as Bluetooth, WiFi, Torch, Camera, Video Player, Calculator, Call, and Quiz. The home screen contains buttons for each functionality, which navigate the user to the respective activity when clicked.

2. Project Setup Technologies Used:

Programming Language: Java

•IDE: Android Studio

•UI Components: Material Design Components



Explanation:

- •LinearLayout: The root view that aligns its children vertically.
- •Button: Each button corresponds to a different functionality (e.g., Bluetooth, WiFi, Torch, Camera, etc.) and has properties like width, height, text, margin, and background color.

3. Conclusion

This project demonstrates the creation of a home activity in an Android application that provides access to various functionalities through buttons. Each button click navigates to a specific activity, showcasing modularity and separation of concerns. The app utilizes edge-to-edge display for a modern look and feel.

Fig i XML for Home Screen

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools"
   android:id="@+id/main12"
   android:background="@drawable/home"
   android:layout width="match parent"
   android:layout height="match parent"
   tools:context=".Seven">
    <TextView
       android:id="@+id/loginRedirectText13"
        android:layout width="wrap content"
        android: layout height="wrap content"
        android:layout alignParentTop="true"
        android:layout alignParentEnd="true"
        android:layout gravity="center"
        android:layout marginTop="28dp"
        android:layout marginEnd="69dp"
        android:background="@drawable/custom edittext"
        android:backgroundTint="#F64C35"
        android:padding="8dp"
        android:text="Select Your Service"
        android:textColor="@color/white"
        android:textSize="30sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout constraintStart toStartOf="parent"
        tools:layout editor absoluteY="52dp">
    </TextView>
    <Button
        android:id="@+id/calculator16"
        android:layout_width="131dp"
        android:layout_height="wrap content"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_marginStart="36dp"
        android:layout_marginTop="178dp"
        android:text="Calculator"
        tools:layout editor absoluteX="31dp"
        tools:layout editor absoluteY="169dp" />
   <Button
        android:id="@+id/musicplayer17"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout alignParentStart="true"
        android:layout alignParentTop="true"
        android:layout marginStart="248dp"
        android:layout marginTop="179dp"
        android:text="Music Player" />
    <Button
        android:id="@+id/wifi18"
        android:layout width="wrap content"
        android:layout height="wrap content"
```

```
android:layout alignParentStart="true"
    android:layout alignParentTop="true"
    android:layout marginStart="36dp"
    android:layout marginTop="270dp"
    android:text="Click for Wifi " />
<But.ton
    android:id="@+id/bluetooth19"
    android:layout width="120dp"
    android:layout height="wrap content"
    android:layout alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout marginTop="276dp"
    android:layout marginEnd="29dp"
    android:text="Bluetooth" />
<Button
    android:id="@+id/camera20"
    android:layout width="131dp"
    android:layout height="wrap content"
    android:layout alignParentStart="true"
    android:layout alignParentBottom="true"
    android:layout marginStart="44dp"
    android:layout marginBottom="343dp"
    android:text="Click Photo" />
<Button
   android:id="@+id/torch21"
    android:layout width="124dp"
    android:layout height="wrap content"
    android:layout alignParentEnd="true"
    android:layout alignParentBottom="true"
    android:layout marginEnd="30dp"
    android:layout marginBottom="252dp"
    android:text="Torch" />
<Button
    android:id="@+id/web22"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout alignParentStart="true"
    android:layout alignParentBottom="true"
    android:layout marginStart="48dp"
    android:layout marginBottom="148dp"
    android:text="Web Browser" />
<Button
    android:id="@+id/call23"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout alignParentEnd="true"
    android:layout alignParentBottom="true"
    android:layout marginEnd="33dp"
    android:layout marginBottom="148dp"
    android:text="Click for Call " />
<Button
    android:id="@+id/playquiz15"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout alignParentTop="true"
```

```
android:layout alignParentEnd="true"
        android:layout marginTop="99dp"
        android:layout marginEnd="152dp"
        android:text="Play Quiz" />
    <Button
        android:id="@+id/logout24"
        android:layout width="wrap content"
        android:layout_height="wrap_content"
        android:layout alignParentEnd="true"
        android:layout alignParentBottom="true"
        android:layout_marginEnd="104dp"
        android:layout marginBottom="77dp"
        android:text="Logout from Service" />
    <Button
        android:id="@+id/button4"
        android:layout_width="130dp"
        android:layout height="wrap content"
        android:layout alignParentStart="true"
        android:layout_alignParentBottom="true"
        android:layout_marginStart="47dp"
        android:layout marginBottom="240dp"
        android:text="Record Vedio" />
</RelativeLayout>
```

Fig I Java Code for Home Screen

```
package com.example.ankitapphome;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Seven extends AppCompatActivity {
Button b1, b2, b3, b4, b5, b6, b7, b8, b9, b10, b11;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity seven);
        b1=(Button) findViewById(R.id.playquiz15);
```

```
b2=(Button)findViewById(R.id.calculator16);
        b3=(Button)findViewById(R.id.musicplayer17);
        b4=(Button)findViewById(R.id.wifi18);//error
        b5=(Button)findViewById(R.id.bluetooth19);//error
        b6=(Button) findViewById(R.id.camera20);
        b7=(Button)findViewById(R.id.torch21);//done
        b8=(Button)findViewById(R.id.web22);//done
        b9=(Button)findViewById(R.id.call23); //done
        b10=(Button)findViewById(R.id.logout24);
        b11=(Button)findViewById(R.id.button4);
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent a=new Intent(Seven.this, Playquiz.class);
                startActivity(a);
                finish();
            }
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent b=new Intent(Seven.this, Calculator.class);
                startActivity(b);
                finish();
        });
        b3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent c=new Intent(Seven.this, MusicPlayer.class);
                startActivity(c);
                finish();
        });
        b4.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent d=new Intent(Seven.this, Wifis.class);
                startActivity(d);
                finish();
        });
        b5.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent d=new Intent(Seven.this, Bluetooth.class);
                startActivity(d);
                finish();
        });
        b6.setOnClickListener(new View.OnClickListener() {
```

```
@Override
            public void onClick(View v) {
                Intent e=new Intent(Seven.this, Camera.class);
                startActivity(e);
                finish();
        });
        b7.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent f=new Intent(Seven.this, Torch.class);
                startActivity(f);
                finish();
            }
        });
        b8.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent g=new Intent(Seven.this, Webbrowser.class);
                startActivity(g);
                finish();
            }
        });
        b9.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent h=new Intent(Seven.this, Call.class);
                startActivity(h);
                finish();
            }
        });
        b10.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new Intent(Seven.this, First.class);
                startActivity(i);
                finish();
            }
        });
        b11.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                Intent m=new Intent(Seven.this, Record.class);
                startActivity(m);
                finish();
            }
       });
  }
}
```

6.Bluetooth



Project Report: Android WiFi Management Activity

1. Introduction:

This project demonstrates a basic Android application featuring a WiFi management activity. It includes functionalities to enable and disable WiFi, as well as navigate to another activity. The activity features buttons to trigger these actions and provides user feedback using Toast messages

Project Setup Technologies Used:

Programming Language: Java

•IDE: Android Studio

•UI Components: Material Design Components



Explanation:

- •Initialization: The onCreate method sets up the activity, initializes UI components, and assigns click listeners to each button.
- •WiFi Enable/Disable: The buttons for enabling and disabling WiFi check the current WiFi status and toggle it accordingly, providing feedback via Toast messages.
- Navigation: The "Next" button navigates to the TorchActivity.

Fig j Xml Code for Bluetooth

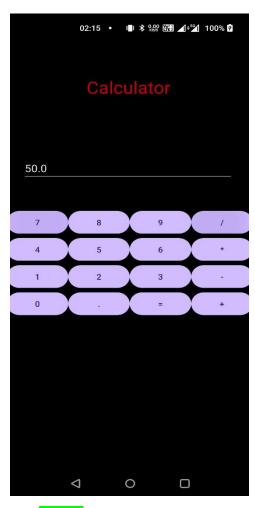
```
xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main12"
    android:background="@drawable/home"
    android:layout width="match parent"
    android:layout height="match_parent"
    tools:context=".Bluetooth">
    <TextView
        android:id="@+id/loginRedirectText23"
        android:layout width="wrap content"
        android:layout_height="wrap content"
        android:layout_alignParentEnd="true"
        android:layout gravity="center"
        android:layout_marginTop="62dp"
        android:layout marginEnd="103dp"
        android:padding="8dp"
        android:text="BLUETOOTH"
        android:textColor="@color/black"
        android:textSize="34sp"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal bias="0.494"
        app:layout constraintStart toStartOf="parent"
        app:layout_constraintTop toTopOf="parent" />
    <ImageButton</pre>
        android:id="@+id/imageButton5"
        android:layout width="120dp"
        android:layout_height="115dp"
        android:layout_alignParentStart="true"
        android:layout alignParentTop="true"
        android:layout marginStart="39dp"
        android:layout marginTop="259dp"
        android:scaleType="fitXY"
        app:srcCompat="@drawable/blueon" />
    <ImageButton</pre>
        android:id="@+id/imageButton6"
        android:layout width="120dp"
        android:layout height="115dp"
        android:layout alignParentTop="true"
        android:layout alignParentEnd="true"
        android:layout marginTop="257dp"
        android:layout marginEnd="43dp"
        android:scaleType="fitXY"
        app:srcCompat="@drawable/blueoff" />
        android:id="@+id/button20"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout alignParentStart="true"
        android:layout alignParentBottom="true"
        android:layout marginStart="156dp"
        android:layout marginBottom="151dp"
        android:text="Exit" />
</RelativeLayout>
```

Fig j Java Code for Bluetooth

```
package com.example.ankitapphome;
import android.annotation.SuppressLint;
import android.bluetooth.BluetoothAdapter;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageButton;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Bluetooth extends AppCompatActivity {
    ImageButton b1, b2;
    BluetoothAdapter ba;
Button b3;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity bluetooth2);
        b1 = (ImageButton) findViewById(R.id.imageButton5);
        b2 = (ImageButton) findViewById(R.id.imageButton6);
        b3=(Button)findViewById(R.id.button20);
        ba = BluetoothAdapter.getDefaultAdapter();
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if (ActivityCompat.checkSelfPermission(Bluetooth.this,
android.Manifest.permission.BLUETOOTH CONNECT) !=
PackageManager.PERMISSION GRANTED) {
                    // TODO: Consider calling
                    // ActivityCompat#requestPermissions
                    // here to request the missing permissions, and then
overriding
                    // public void onRequestPermissionsResult(int
requestCode, String[] permissions,
                                                                 int[]
grantResults)
                    // to handle the case where the user grants the
```

```
permission. See the documentation
                    // for ActivityCompat#requestPermissions for more
details.
                    return;
               ba.enable();
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
               if (ActivityCompat.checkSelfPermission(Bluetooth.this,
android.Manifest.permission.BLUETOOTH CONNECT) !=
PackageManager. PERMISSION GRANTED) {
                    // TODO: Consider calling
                    // ActivityCompat#requestPermissions
                    // here to request the missing permissions, and then
overriding
                    // public void onRequestPermissionsResult(int
requestCode, String[] permissions,
                                                                int[]
grantResults)
                    // to handle the case where the user grants the
permission. See the documentation
                    // for ActivityCompat#requestPermissions for more
details.
                    return;
               ba.disable();
        });
        b3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent k=new Intent(Bluetooth.this, Seven.class);
                startActivity(k);
                finish();
       });
   }
}
```

7.Calculator



2.1.1 1. Introduction

A calculator is a fundamental application that performs arithmetic operations. This project focuses on developing a simple yet functional calculator using Android Studio and Java. The calculator will support basic operations like addition, subtraction, multiplication, and division

Architecture Diagram

The architecture of the project can be divided into two main components:

- 1. **User Interface**: The front-end part of the application.
- 2. **Calculator Logic**: The backend logic for performing arithmetic operations.

Fig k

User Interface

The UI consists of buttons for digits (0-9), arithmetic operations (+, -, *, /), a clear button (C), and an equals button (=).

Fig k XML code For Calculator

```
xmlns:tools="http://schemas.android.com/tools"
android:id="@+id/main12"
android:background="@color/black"
android:layout width="match parent"
android:layout height="match parent"
tools:context=".Calculator">
<TextView
    android:id="@+id/loginRedirectText23"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout marginTop="62dp"
   android:padding="8dp"
   android:text="Calculator"
    android:textColor="@android:color/holo red dark"
    android:textSize="30sp"
   app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.494"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
<LinearLayout
   android:id="@+id/linearLayout"
    android:layout width="395dp"
   android:layout_height="200dp"
   android:layout marginTop="25dp"
   android:layout marginBottom="240dp"
   android:orientation="vertical"
   app:layout constraintBottom toBottomOf="parent"
   app:layout constraintEnd toEndOf="parent"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/editTextText4">
    <LinearLayout</pre>
        android:layout width="match parent"
        android:layout height="wrap content"
        android:orientation="horizontal">
        <Button
            android:id="@+id/button7"
            android:layout width="0dp"
            android:layout height="wrap content"
            android:layout weight="1"
            android:text="7" />
        <But.ton
            android:id="@+id/button8"
            android:layout width="0dp"
            android:layout height="wrap content"
            android:layout weight="1"
            android:text="8" />
        <Rutton
            android:id="@+id/button9"
            android:layout width="0dp"
            android:layout height="wrap content"
            android:layout weight="1"
            android:text="9" />
```

```
<Button
        android:id="@+id/buttonDivide"
        android:layout width="0dp"
        android:layout height="wrap content"
        android:layout weight="1"
        android:text="/" />
</LinearLayout>
<LinearLayout
   android:layout width="match parent"
    android:layout height="wrap content"
    android:orientation="horizontal">
    <Button
        android:id="@+id/button4"
        android:layout width="0dp"
        android:layout_height="wrap_content"
       android:layout_weight="1"
       android:text="4" />
    <But.ton
       android:id="@+id/button5"
        android:layout width="0dp"
        android:layout height="wrap content"
        android:layout_weight="1"
        android:text="5" />
    <Button
       android:id="@+id/button6"
        android:layout width="0dp"
        android:layout height="wrap content"
        android:layout weight="1"
        android:text="6" />
    <Button
        android:id="@+id/buttonMultiply"
        android:layout width="0dp"
        android:layout_height="wrap_content"
        android:layout weight="1"
        android:text="*" />
</LinearLayout>
<LinearLavout
   android:layout width="match parent"
   android:layout height="wrap content"
   android:orientation="horizontal">
   <But.ton
        android:id="@+id/button1"
        android:layout width="0dp"
        android:layout height="wrap content"
        android:layout weight="1"
       android:text="1" />
    <Button
        android:id="@+id/button2"
        android:layout width="0dp"
        android:layout height="wrap content"
        android:layout weight="1"
```

```
android:text="2" />
        <But.ton
            android:id="@+id/button3"
            android:layout width="0dp"
            android:layout height="wrap content"
            android:layout weight="1"
            android:text="3" />
        <Button
            android:id="@+id/buttonMinus"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
android:text="-" />
    </LinearLayout>
    <LinearLayout
        android:layout width="match parent"
        android:layout height="wrap content"
        android:orientation="horizontal">
        <But.ton
            android:id="@+id/button0"
            android:layout width="0dp"
            android:layout height="wrap content"
            android:layout_weight="1"
            android:text="0" />
        <Button
            android:id="@+id/buttonDot"
            android:layout width="0dp"
            android:layout height="wrap content"
            android:layout weight="1"
            android:text="." />
        <Button
            android:id="@+id/buttonEquals"
            android:layout width="0dp"
            android:layout height="wrap_content"
            android:layout weight="1"
            android:text="=" />
        <Button
            android:id="@+id/buttonPlus"
            android:layout width="0dp"
            android:layout height="wrap_content"
            android:layout weight="1"
            android:text="+" />
    </LinearLayout>
</LinearLayout>
<EditText
    android:id="@+id/editTextText4"
    android:layout_width="339dp"
    android:layout height="44dp"
    android:layout marginStart="8dp"
    android:layout marginTop="212dp"
```

```
android:layout marginEnd="14dp"
    android:ems="10"
    android:hint="Enter a number"
    android:inputType="text"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout_constraintTop toTopOf="parent" />
<Button
    android:id="@+id/button21"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:layout marginTop="74dp"
    android:layout marginBottom="123dp"
    android:text="Exit"
   app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/linearLayout" />
```

Fig k Java code For Calculator

</androidx.constraintlayout.widget.ConstraintLayout>

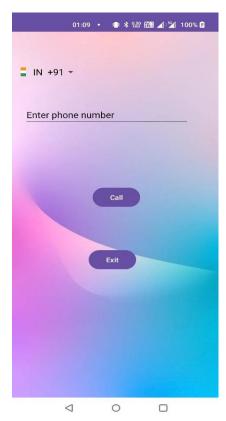
```
package com.example.ankitapphome;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Calculator extends AppCompatActivity {
    private EditText e1;
   private Button button0, button1, button2, button3, button4, button5,
button6, button7, button8, button9,b1;
    private Button buttonPlus, buttonMinus, buttonMultiply, buttonDivide,
buttonEquals, buttonDot;
   private double num1, num2, result;
   private String operator;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity calculator);
        e1=(EditText) findViewById(R.id.editTextText4);
        button0 = findViewById(R.id.button0);
        button1 = findViewById(R.id.button1);
        button2 = findViewById(R.id.button2);
        button3 = findViewById(R.id.button3);
```

```
button4 = findViewById(R.id.button4);
        button5 = findViewById(R.id.button5);
        button6 = findViewById(R.id.button6);
        button7 = findViewById(R.id.button7);
        button8 = findViewById(R.id.button8);
        button9 = findViewById(R.id.button9);
        b1=(Button) findViewById(R.id.button21);
        buttonPlus = findViewById(R.id.buttonPlus);
        buttonMinus = findViewById(R.id.buttonMinus);
        buttonMultiply = findViewById(R.id.buttonMultiply);
        buttonDivide = findViewById(R.id.buttonDivide);
        buttonEquals = findViewById(R.id.buttonEquals);
        buttonDot = findViewById(R.id.buttonDot);
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        button0.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                e1.setText(e1.getText() + "0");
        });
        button1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                e1.setText(e1.getText() + "1");
        });
        button2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                e1.setText(e1.getText() + "2");
        });
        button3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                e1.setText(e1.getText() + "3");
        });
        button4.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                e1.setText(e1.getText() + "4");
        });
        button5.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                e1.setText(e1.getText() + "5");
        });
        button6.setOnClickListener(new View.OnClickListener() {
```

```
@Override
   public void onClick(View v) {
       e1.setText(e1.getText() + "6");
});
button7.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
       e1.setText(e1.getText() + "7");
});
button8.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
       e1.setText(e1.getText() + "8");
});
button9.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
       e1.setText(e1.getText() + "9");
});
buttonPlus.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
       num1 = Double.parseDouble(e1.getText().toString());
       operator = "+";
       e1.setText("");
    }
});
buttonMinus.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
        num1 = Double.parseDouble(e1.getText().toString());
       operator = "-";
       e1.setText("");
});
buttonMultiply.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
        num1 = Double.parseDouble(e1.getText().toString());
       operator = "*";
       e1.setText("");
});
buttonDivide.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
       num1 = Double.parseDouble(e1.getText().toString());
       operator = "/";
       e1.setText("");
});
buttonEquals.setOnClickListener(new View.OnClickListener() {
   @Override
```

```
public void onClick(View v) {
                num2 = Double.parseDouble(e1.getText().toString());
                switch (operator) {
                    case "+":
                        result = num1 + num2;
                        break;
                    case "-":
                        result = num1 - num2;
                        break;
                    case "*":
                        result = num1 * num2;
                        break;
                    case "/":
                        result = num1 / num2;
                        break;
                e1.setText(String.valueOf(result));
            }
        });
        buttonDot.setOnClickListener(new View.OnClickListener() {
           @Override
            public void onClick(View v) {
               e1.setText(e1.getText() + ".");
            }
        });
        b1.setOnClickListener(new View.OnClickListener() {
           @Override
            public void onClick(View v) {
                Intent k=new Intent(Calculator.this, Seven.class);
                startActivity(k);
                finish();
            }
      });
  }
}
```

8.Calling App



1. Introduction

The ability to make phone calls is a fundamental feature in mobile devices. This project focuses on creating a basic calling app using Android Studio with Java, allowing users to dial phone numbers and initiate calls directly from the app.

Flow Diagram

- 1. User opens the calling app.
- 2. User enters a phone number.
- 3. User presses the call button.
- 4. The app requests call permissions if not already granted.
- 5. The phone call is connected.



Fig L Xml Code For Calling APP

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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/relativeLayout"
    android:layout width="match parent"
    android:layout height="match parent"
    android:background="@drawable/home"
    android:padding="16dp">
    <EditText
        android:id="@+id/editTextPhoneNumber26"
        android:layout width="306dp"
        android:layout height="wrap content"
        android:layout_marginStart="7dp"
        android:layout marginTop="33dp"
        android:layout marginEnd="83dp"
        android:layout marginBottom="36dp"
```

```
android:hint="Enter phone number"
        android:inputType="phone"
        android:textColor="#171414"
        android:textColorHint="#100F0F"
        app:layout_constraintBottom toTopOf="@+id/buttonCall"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/cpp2" />
   <Button
        android:id="@+id/buttonCall"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="161dp"
        android:layout marginTop="91dp"
        android:layout marginEnd="146dp"
        android:layout marginBottom="34dp"
        android:text="Call"
        app:layout_constraintBottom_toTopOf="@+id/button"
        app:layout_constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal bias="0.625"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/editTextPhoneNumber26" />
    <com.hbb20.CountryCodePicker</pre>
       android:id="@+id/cpp2"
        android:layout width="307dp"
       android:layout height="46dp"
       android:layout marginStart="17dp"
       android:layout marginTop="112dp"
       android:layout marginEnd="71dp"
        android:layout marginBottom="9dp"
        app:layout_constraintBottom toTopOf="@+id/editTextPhoneNumber26"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="1.0"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout constraintVertical bias="0.0" />
        android:id="@+id/button"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginStart="167dp"
        android:layout marginTop="49dp"
        android:layout marginEnd="140dp"
        android:layout marginBottom="313dp"
        android:text="Exit"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.937"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/buttonCall"
        app:layout constraintVertical bias="0.326" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Fig L Java Code For Calling APP

```
package com.example.ankitapphome;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.Manifest;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.net.Uri;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;
public class Call extends AppCompatActivity {
    private static final int REQUEST CALL PERMISSION = 1;
    private EditText editTextPhoneNumber;
    private Button buttonCall, button;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity call);
        editTextPhoneNumber = findViewById(R.id.editTextPhoneNumber26);
        buttonCall = findViewById(R.id.buttonCall);
        button=(Button)findViewById(R.id.button);
        buttonCall.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                makePhoneCall();
        });
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new Intent(Call.this, Seven.class);
                startActivity(i);
                finish();
        });
    }
    private void makePhoneCall() {
        String phoneNumber = editTextPhoneNumber.getText().toString();
        if (phoneNumber.trim().length() > 0) {
```

```
if (ContextCompat.checkSelfPermission(Call.this,
                    Manifest.permission.CALL PHONE) !=
PackageManager.PERMISSION GRANTED) {
                ActivityCompat.requestPermissions(Call.this,
                        new String[]{Manifest.permission.CALL PHONE},
REQUEST CALL PERMISSION);
            } else {
                String dial = "tel:" + phoneNumber;
                startActivity(new Intent(Intent.ACTION CALL,
Uri.parse(dial)));
        } else {
            Toast.makeText(Call.this, "Enter a phone number",
Toast.LENGTH SHORT).show();
       }
    @SuppressLint("MissingSuperCall")
    @Override
    public void onRequestPermissionsResult(int requestCode, String[]
permissions, int[] grantResults) {
        if (requestCode == REQUEST_CALL_PERMISSION) {
            if (grantResults.length > 0 && grantResults[0] ==
PackageManager.PERMISSION GRANTED) {
               makePhoneCall();
            } else {
                Toast.makeText(this, "Permission DENIED",
Toast.LENGTH SHORT).show();
            }
        }
   }
}
```

9.Torch



Project Report: Torch App

1. Introduction

This project report outlines the development of a simple Torch app using Android Studio with Java. The app will allow users to turn the device's flashlight on and off, providing a handy tool for illumination.

Flow Diagram

- 1. User opens the app.
- 2. User grants necessary permissions.
- 3. User toggles the flashlight using a button.
- 4. The system turns the flashlight on or off based on user input.

Fig M

Camera and Flashlight Control

To control the flashlight, we use the Camera2 API for devices running Android Lollipop (API 21) and above.

Fig M Xml Code For Torch APP

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/main12"
    android:background="@drawable/home"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Torch">
```

```
<TextView
        android:id="@+id/loginRedirectText23"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout alignParentEnd="true"
        android:layout gravity="center"
        android:layout marginTop="62dp"
        android:layout marginEnd="131dp"
        android:padding="8dp"
        android:text="TORCH"
        android:textColor="@color/black"
        android:textSize="34sp"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal bias="0.494"
        app:layout_constraintStart_toStartOf="parent"
        app:layout constraintTop toTopOf="parent" />
    <ImageButton</pre>
        android:id="@+id/imageButton11"
        android:layout width="238dp"
        android:layout height="111dp"
       android:layout alignParentStart="true"
       android:layout_alignParentTop="true"
       android:layout_marginStart="84dp"
        android:layout_marginTop="264dp"
        android:scaleType="fitXY"
        app:srcCompat="@drawable/on" />
   <Button
       android:id="@+id/button23"
        android:layout width="wrap content"
       android:layout height="wrap content"
       android:layout alignParentEnd="true"
       android:layout alignParentBottom="true"
       android:layout marginEnd="160dp"
        android:layout marginBottom="166dp"
       android:text="Exit" />
</RelativeLayout>
```

Fig M Java Code For Torch APP

```
package com.example.ankitapphome;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.hardware.camera2.CameraAccessException;
import android.hardware.camera2.CameraManager;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageButton;
import androidx.activity.EdgeToEdge;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Torch extends AppCompatActivity {
```

```
ImageButton b1;
CameraManager cm;
Button b2;
private boolean torch = false;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity torch2);
        b1=(ImageButton) findViewById(R.id.imageButton11);
        cm= (CameraManager) getSystemService (CAMERA SERVICE);
        b2=(Button)findViewById(R.id.button23);
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(torch==false){
                    try {
                        String id=cm.getCameraIdList()[0];
                        cm.setTorchMode(id,true);
                        torch=true;
                        b1.setImageResource(R.drawable.on);
                    }catch (CameraAccessException e) {
            }else {
                    try {
                        String id=cm.getCameraIdList()[0];
                        cm.setTorchMode(id,false);
                        torch=false;
                        b1.setImageResource(R.drawable.off);
                    }catch (CameraAccessException e) {
                }
                    }
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent k=new Intent(Torch.this, Seven.class);
                startActivity(k);
                finish();
        });
    }
    }
```

10.Wifi



Introduction

This project report outlines the development of a WiFi management app using Android Studio with Java. The app will allow users to scan for available WiFi networks, connect to a selected network, and display the connection status

The architecture of the project consists of:

- 1. **User Interface**: The front-end of the application.
- 2. **WiFi Management**: Handles scanning and connecting to WiFi networks.
- 3. **Permissions Handler**: Ensures that the necessary permissions are granted.

Diagram

- 1. User opens the app.
- 2. User grants necessary permissions.
- 3. User initiates a WiFi scan.
- 4. The system displays a list of available networks.
- 5. User selects a network and enters credentials.
- 6. The system connects to the selected network.
- 7. The user is notified of the connection status.

User Interface

The UI consists of a screen with a button to scan for WiFi networks, a list to display available networks, and input fields for network credentials

Fig N XML Code For Wifi APP

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main12"
    android:background="@drawable/home"
    android: layout width="match parent"
    android:layout height="match parent"
    tools:context=".Wifis">
    <TextView
        android:id="@+id/loginRedirectText23"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout alignParentEnd="true"
        android:layout gravity="center"
        android:layout marginTop="62dp"
        android:layout marginEnd="160dp"
        android:padding="8dp"
        android:text="WIFI"
        android:textColor="@color/black"
        android:textSize="34sp"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.494"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent" />
    <ImageButton</pre>
        android:id="@+id/imageButton"
        android:layout width="120dp"
        android:layout height="115dp"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_marginStart="50dp"
        android:layout marginTop="272dp"
        android:scaleType="fitXY"
        app:srcCompat="@drawable/wifion" />
    <ImageButton</pre>
        android:id="@+id/imageButton4"
        android:layout width="120dp"
        android:layout_height="115dp"
        android:layout_alignParentTop="true"
        android:layout alignParentEnd="true"
        android:layout marginTop="273dp"
        android:layout marginEnd="50dp"
        android:scaleType="fitXY"
        app:srcCompat="@drawable/wifioff" />
    <But.ton
        android:id="@+id/button22"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout alignParentStart="true"
        android:layout alignParentBottom="true"
```

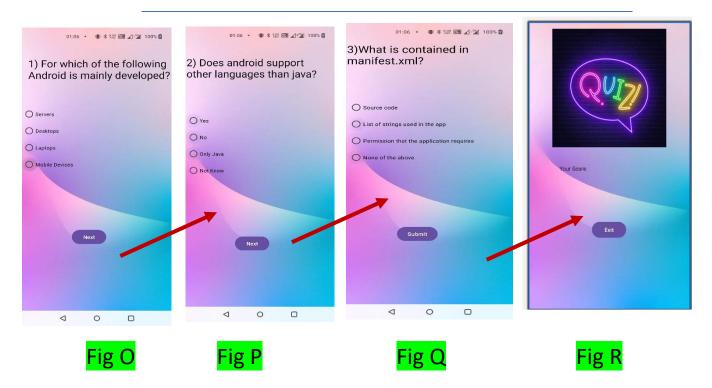
```
android:layout_marginStart="153dp"
android:layout_marginBottom="154dp"
android:text="Exit" />
</RelativeLayout>
```

Fig N Java Code For Wifi APP

```
package com.example.ankitapphome;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.net.wifi.WifiManager;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageButton;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Wifis extends AppCompatActivity {
ImageButton b1,b2;
WifiManager wm;
Button b3;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity wifis);
        b1=(ImageButton) findViewById(R.id.imageButton);
        b2=(ImageButton)findViewById(R.id.imageButton4);
        b3=(Button)findViewById(R.id.button22);
        wm= (WifiManager) getSystemService (WIFI SERVICE) ;
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                wm.setWifiEnabled(true);
        });
        b2.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                wm.setWifiEnabled(false);
```

```
}
});
b3.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent k=new Intent(Wifis.this, Seven.class);
        startActivity(k);
        finish();
    }
});
```

11.QUIZ



Introduction

This project report details the development of a Quiz app using Android Studio with Java. The app will allow users to answer multiple-choice questions and receive a score based on their answers. It aims to provide a simple and engaging way for users to test their knowledge on various topics.

Architecture Diagram

The architecture of the project can be divided into three main components:

- 1. **User Interface**: The front-end part of the application where users interact with the quiz.
- 2. **Data Management**: Handles storing and retrieving quiz questions and user data.
- 3. Logic Layer: Manages the quiz logic, including scoring and feedback

User Interface

The UI consists of several screens:

- Main Screen: Where users can start the quiz.
- Quiz Screen: Displays the questions and answer options.
- Result Screen: Shows the final score and feedback

Fig O Xml Code For Quiz APP

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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/main12"
   android:layout width="match parent"
   android:background="@drawable/home"
   android:layout height="match parent"
   tools:context=".Playquiz">
    <RadioGroup
        android:id="@+id/radioGroup"
        android:layout width="359dp"
       android:layout height="295dp"
        android:layout marginStart="16dp"
        android:layout_marginEnd="36dp"
        app:layout constraintBottom toBottomOf="parent"
        app:layout_constraintEnd toEndOf="parent"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout constraintVertical bias="0.387">
        < Radio Button
            android:id="@+id/radioButton"
            android:layout width="match parent"
            android:layout height="wrap content"
            android:text="Servers"
            android:textColor="#120F0F" />
        <RadioButton
            android:id="@+id/radioButton2"
            android:layout width="match parent"
            android:layout height="wrap content"
            android:text="Desktops"
            android:textColor="#120F0F" />
        < Radio Button
```

```
android:id="@+id/radioButton3"
           android:layout width="match parent"
           android:layout height="wrap content"
            android:text="Laptops"
           android:textColor="#120F0F" />
        < Radio Button
           android:id="@+id/radioButton4"
            android:layout width="match parent"
           android:layout height="wrap content"
           android:text="Mobile Devices"
           android:textColor="#120F0F" />
    </RadioGroup>
    <Button
       android:id="@+id/button14"
       android:layout width="wrap content"
       android:layout_height="wrap content"
       android:layout marginTop="56dp"
       android:layout marginBottom="163dp"
       android:text="Next"
       app:layout_constraintBottom_toBottomOf="parent"
       app:layout_constraintEnd_toEndOf="parent"
       app:layout_constraintHorizontal_bias="0.433"
        app:layout constraintStart toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/radioGroup"
        app:layout constraintVertical bias="0.0" />
   <TextView
       android:id="@+id/textView2"
       android:layout width="367dp"
       android:layout height="108dp"
       android:layout marginStart="16dp"
       android:layout marginTop="44dp"
       android:text="1) For which of the following Android is mainly
developed?"
       android:textColor="#120F0F"
        android:textSize="28sp"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Fig O Java Code For Quiz APP

```
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.TextView;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
```

package com.example.ankitapphome;

```
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import org.w3c.dom.Text;
public class Playquiz extends AppCompatActivity {
TextView t1;
Button b1;
RadioButton r1, r2, r3, r4;
static int score=0;
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity playquiz2);
        t1=(TextView) findViewById(R.id.textView2);
        b1=(Button)findViewById(R.id.button14);
        r1=(RadioButton) findViewById(R.id.radioButton);
        r2=(RadioButton)findViewById(R.id.radioButton2);
        r3=(RadioButton)findViewById(R.id.radioButton3);
        r4=(RadioButton)findViewById(R.id.radioButton4);
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                score=0;
                if(r4.isChecked()){
                    ++score;
                }else {
                    --score;
                Intent i=new Intent(Playquiz.this, Playquiz1.class);
                startActivity(i);
                finish();
       });
   }
}
```

Fig P Xml Code For Quiz APP

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"</pre>
```

```
xmlns:tools="http://schemas.android.com/tools"
android:id="@+id/main"
android:background="@drawable/home"
android:layout width="match parent"
android:layout height="match parent"
tools:context=".Playquiz1">
< Radio Group
   android:id="@+id/radioGroup2"
    android:layout width="359dp"
    android:layout_height="295dp"
    android:layout_marginStart="16dp"
    android:layout_marginTop="142dp"
    android:layout_marginEnd="32dp"
    android:layout_marginBottom="201dp"
    app:layout constraintBottom toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent">
    <RadioButton
        android:id="@+id/radioButton5"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="Yes"
        android:textColor="#0E0D0D" />
    < Radio Button
        android:id="@+id/radioButton9"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="No"
        android:textColor="#0E0D0D" />
    < Radio Button
        android:id="@+id/radioButton12"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="Only Java"
        android:textColor="#0E0D0D"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintTop toTopOf="parent" />
    <RadioButton
        android:id="@+id/radioButton13"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="Not Know"
        android:textColor="#0E0D0D" />
</RadioGroup>
<TextView
    android:id="@+id/textView3"
    android:layout width="367dp"
    android:layout height="112dp"
    android:layout_marginStart="16dp"
    android:layout_marginTop="35dp"
    android:layout_marginEnd="28dp"
    android:layout marginBottom="42dp"
    android:text="2) Does android support other languages than java?"
```

```
android:textColor="#0E0D0D"
        android:textSize="28sp"
        app:layout constraintBottom toTopOf="@+id/radioGroup2"
        app:layout_constraintEnd toEndOf="parent"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent" />
    <Button
        android:id="@+id/button15"
        android:layout width="wrap content"
        android:layout_height="wrap content"
        android:layout_marginStart="140dp"
        android:layout marginTop="50dp"
        android:layout_marginEnd="181dp"
        android:layout marginBottom="149dp"
        android:text="Next"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/radioGroup2" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Fig P Java Code For Quiz APP

```
package com.example.ankitapphome;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Playquiz1 extends AppCompatActivity {
       RadioButton r1, r2, r3, r4;
       Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity playquiz1);
        r1=(RadioButton) findViewById(R.id.radioButton5);
        r2=(RadioButton)findViewById(R.id.radioButton9);
        r3=(RadioButton)findViewById(R.id.radioButton12);
        r4=(RadioButton)findViewById(R.id.radioButton13);
        b1=(Button) findViewById(R.id.button15);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
```

```
Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(r1.isChecked()){
                    ++Playquiz.score;
                }else {
                    --Playquiz.score;
                Intent i=new Intent(Playquiz1.this, Playquiz2.class);
                startActivity(i);
                finish();
       });
   }
}
```

Fig Q Xml Code For Quiz APP

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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/main"
    android:background="@drawable/home"
    android:layout width="match parent"
    android:layout height="match parent"
    tools:context=".Playquiz2">
    < Radio Group
        android:id="@+id/radioGroup3"
        android:layout width="359dp"
        android:layout height="295dp"
        android:layout marginTop="36dp"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.307"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/textView4">
        <RadioButton
            android:id="@+id/radioButton6"
            android:layout width="match parent"
            android:layout height="wrap content"
            android:text="Source code "
            android:textColor="#090909" />
        <RadioButton
            android:id="@+id/radioButton7"
            android:layout_width="match_parent"
            android:layout height="wrap content"
            android:text="List of strings used in the app"
            android:textColor="#090909" />
```

```
< Radio Button
           android:id="@+id/radioButton8"
            android:layout_width="match_parent"
            android:layout height="wrap content"
            android:text="Permission that the application requires"
            android:textColor="#090909" />
        <RadioButton
           android:id="@+id/radioButton10"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="None of the above"
           android:textColor="#090909" />
    </RadioGroup>
    <TextView
       android:id="@+id/textView4"
       android:layout width="360dp"
       android:layout_height="127dp"
       android:layout_marginStart="16dp"
       android:layout_marginTop="16dp"
       android:layout_marginEnd="35dp"
       android:layout marginBottom="36dp"
       android:text="3)What is contained in manifest.xml?"
       android:textColor="#090909"
       android:textSize="28sp"
       app:layout_constraintBottom_toTopOf="@+id/radioGroup3"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintStart toStartOf="parent"
       app:layout constraintTop toTopOf="parent" />
    <Button
       android:id="@+id/button16"
       android:layout width="wrap content"
       android:layout height="wrap content"
       android:layout marginStart="147dp"
       android:layout marginTop="69dp"
       android:layout marginEnd="173dp"
       android:layout marginBottom="140dp"
        android:text="Submit"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="1.0"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/radioGroup3"
        app:layout constraintVertical bias="0.0" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Fig Q Java Code For Quiz APP

```
package com.example.ankitapphome;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
```

```
import android.widget.RadioButton;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Playquiz2 extends AppCompatActivity {
RadioButton r1, r2, r3, r4;
Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity playquiz3);
        r1=(RadioButton) findViewById(R.id.radioButton6);
        r1=(RadioButton) findViewById(R.id.radioButton7);
        r1=(RadioButton)findViewById(R.id.radioButton8);
        r1=(RadioButton) findViewById(R.id.radioButton10);
        b1=(Button) findViewById(R.id.button16);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) \rightarrow {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(r3.isChecked()){
                    ++Playquiz.score;
                }else {
                    --Playquiz.score;
                Intent i=new Intent(Playquiz2.this, QuizResult.class);
                startActivity(i);
                finish();
            }
       });
   }
}
```

Fig R Xml Code For Quiz APP(Result)

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.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/main"
    android:background="@drawable/home"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".QuizResult">
```

```
<Button
        android:id="@+id/button17"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginTop="68dp"
        android:text="Exit"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/textView6" />
    <ImageView</pre>
        android:id="@+id/imageView4"
        android:layout width="291dp"
        android:layout_height="302dp"
        android:layout_marginTop="16dp"
       android:layout marginBottom="45dp"
        android:scaleType="fitXY"
        app:layout constraintBottom toTopOf="@+id/textView6"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:srcCompat="@drawable/result" />
   <TextView
       android:id="@+id/textView6"
       android:layout width="252dp"
       android:layout_height="74dp"
       android:layout_marginStart="52dp"
       android:layout marginEnd="55dp"
       android:layout marginBottom="101dp"
       android:hint="Your Score "
       android:textColorHint="#191616"
        app:layout_constraintBottom toTopOf="@+id/button17"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintStart toStartOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Fig R Java Code For Quiz APP(Result)

```
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class QuizResult extends AppCompatActivity {
TextView t1;
Button b1;
```

package com.example.ankitapphome;

```
@Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity quiz result);
        b1=(Button) findViewById(R.id.button17);
        t1=(TextView) findViewById(R.id.textView6);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
           v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
           return insets;
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i= new Intent(QuizResult.this, Seven.class);
                startActivity(i);
                finish();
       });
   }
}
```

12.Web Browser



Project Report: Web Browser App in Android Studio with Java

Introduction

This project report outlines the development of a simple web browser app using Android Studio with Java. The app allows users to navigate the internet, featuring a user-friendly interface and basic browser functionalities

Architecture Diagram

The architecture of the project consists of:

- 1. **User Interface**: The front-end of the application.
- 2. **WebView Component**: Renders web pages within the app.
- 3. **Permissions Handler**: Ensures that necessary permissions are granted.

Fig Q

Diagram

- 1. User opens the app.
- 2. User enters a URL in the address bar.
- 3. The app loads the webpage using WebView.
- 4. User navigates the web pages using the provided controls.

User Interface

The UI consists of a single screen with an address bar, a WebView, and navigation buttons.

Fig Q Xml Code For Web Browser

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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/main12"
    android:layout width="match parent"
    android:layout height="match parent"
    tools:context=".Webbrowser">
    <WebView
       android:id="@+id/webView"
        android:layout width="402dp"
        android:layout height="569dp"
        android:layout marginStart="18dp"
        android:layout marginTop="86dp"
        android:layout marginEnd="36dp"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.311"
        app:layout_constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout constraintVertical bias="0.0" />
    <EditText
       android:id="@+id/editTextText"
        android:layout width="379dp"
        android:layout_height="44dp"
        android:layout marginStart="16dp"
        android:layout marginTop="16dp"
        android:ems="10"
        android:hint="Search"
        android:inputType="text"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent" />
    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout height="wrap content"
        android:layout marginBottom="16dp"
        android:text="Search"
        app:layout constraintBottom toBottomOf="parent"
        app:layout_constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal bias="0.789"
        app:layout_constraintStart toStartOf="parent" />
    <Button
       android:id="@+id/button3"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginEnd="96dp"
        android:layout marginBottom="16dp"
        android:text="Exit"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toStartOf="@+id/button2" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Fig Q Java Code For Web Browser

```
package com.example.ankitapphome;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.webkit.WebView;
import android.widget.Button;
import android.widget.EditText;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
public class Webbrowser extends AppCompatActivity {
    EditText e1;
    WebView w1:
    Button b1,b2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity webbrowser2);
        e1=(EditText) findViewById(R.id.editTextText);
        w1=(WebView) findViewById(R.id.webView);
        b1=(Button)findViewById(R.id.button2);
        b2=(Button) findViewById(R.id.button3);
ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main12), (v,
insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new Intent (Webbrowser.this, Seven.class);
                startActivity(i);
                finish();
            }
        }):
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String s1=e1.getText().toString();
                w1.loadUrl(s1);
       });
   }
}
```