

Mobile application program

1 login program:

Activity_main.xml:

```
<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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/textView"
        android:layout_width="60dp"
        android:layout_height="wrap_content"
        android:text="Login"
        android:textSize="20dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.126" />
    <EditText
        android:id="@+id/editTextUserId"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="5dp"
        android:layout_marginLeft="5dp"
        android:layout_marginBottom="55dp"
        android:ems="10"
        android:hint="Enter User Id"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/editTextTextPassword"
        app:layout_constraintStart_toStartOf="@+id/editTextTextPassword" />
    <EditText
        android:id="@+id/editTextTextPassword"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="276dp"
        android:ems="10"
        android:hint="Enter Password"
        android:inputType="textPassword"
        app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="52dp"
        android:text="Log me in"
        android:onClick="loginCheck"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPassword" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

```

MainActivity.java:
package com.example.loginapp;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    EditText userid, password;
    Button loginButton;
    int count=3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        userid = findViewById(R.id.editTextUserId);
        password = findViewById(R.id.editTextTextPassword);
        loginButton = findViewById(R.id.button);
    }
    public void loginCheck(View view){
        if (userid.getText().toString().equals("vikash") &&
            password.getText().toString().equals("viki")){
            Toast.makeText(this, "Login Successful",
                Toast.LENGTH_SHORT).show();
        }

        else{
            count--;
            Toast.makeText(this, "Wrong Credentials... Remaining Attempts "
+ count,
                Toast.LENGTH_LONG).show();
        }
        if (count == 0){
            loginButton.setEnabled(false);
        }
    }
}

```

Output:

7:13

Login

Enter User Id

Enter Password

Log me in

1:1

This screenshot shows the initial login screen of a mobile application. The background is a light pink color. At the top, there is a status bar with the time 7:13 and signal icons. Below the status bar, the word "Login" is centered. There are two input fields: "Enter User Id" and "Enter Password". Below the input fields is a purple button labeled "Log me in". At the bottom right, there is a vertical toolbar with a plus sign, a minus sign, and a 1:1 aspect ratio icon.

7:13

Login

vikash

....

Log me in

Login Successful

1:1

This screenshot shows the login screen after a successful login. The background is a light pink color. At the top, there is a status bar with the time 7:13 and signal icons. Below the status bar, the word "Login" is centered. The "Enter User Id" field now contains the text "vikash". The "Enter Password" field contains four dots "....". Below the input fields is a purple button labeled "Log me in". At the bottom center, there is a green button labeled "Login Successful". At the bottom right, there is a vertical toolbar with a plus sign, a minus sign, and a 1:1 aspect ratio icon.

7:14

Login

vikash

....

Log me in

Wrong Credentials... Remaining Attempts 2

1:1

This screenshot shows the login screen after a failed login attempt. The background is a light pink color. At the top, there is a status bar with the time 7:14 and signal icons. Below the status bar, the word "Login" is centered. The "Enter User Id" field now contains the text "vikash". The "Enter Password" field contains four dots "....". Below the input fields is a purple button labeled "Log me in". At the bottom center, there is a green button labeled "Wrong Credentials... Remaining Attempts 2". At the bottom right, there is a vertical toolbar with a plus sign, a minus sign, and a 1:1 aspect ratio icon.

2.single screen app:

Activity_main.xml:

```
<?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:padding="2dp"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/menu_item_1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/welcome_to_the_cake_shop"
        android:padding="10dp"
        android:textSize="30sp" />

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:layout_height="300dp"
        android:scaleType="centerCrop"
        app:srcCompat="@drawable/cake"
        android:contentDescription="@string/cake_image" />

    <TextView
        android:id="@+id/menu_item_2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="10dp"
        android:text="@string/contact_on_044290329093"
        android:textSize="30sp" />

    <TextView
        android:id="@+id/menu_item_3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="10dp"
        android:text="@string/email_cakeshop_gmail_com"
        android:textSize="28sp" />

    <TextView
        android:id="@+id/menu_item_4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="10dp"
        android:text="@string/working_hours_7am_to_9pm"
        android:textSize="30sp" />

</LinearLayout>
```

Strings.xml:

```
<resources>
    <string name="app_name">single</string>
    <string name="the_cake_shop">The Cake Shop</string>
```

```
<string name="contact_on_044290329093">Contact on : +044290329093</string>
<string name="email_cakeshop_gmail_com">Email : cakeshop@gmail.com</string>
<string name="welcome_to_the_cake_shop">Welcome to the Cake Shop</string>
<string name="working_hours_7am_to_9pm">Working Hours : 8am to 7pm</string>
<string name="cake_image">Cake image</string>
</resources>
```

Output:



3 score keeper app:

Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#fff4f4f4"
    android:orientation="vertical">
    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:layout_gravity="center"
        android:orientation="vertical">
        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:fontFamily="sans-serif-medium"
            android:text="Game Score Keeper"
            android:textColor="#fd0095ff"
            android:textSize="30sp"
            android:padding="25dp" />
    </LinearLayout>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="#999"
        android:orientation="horizontal">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginRight="1dp"
            android:layout_weight="1"
            android:background="#fff4f4f4"
            android:gravity="center_horizontal"
            android:orientation="vertical"
            android:padding="16dp">
            <TextView

                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:fontFamily="sans-serif-medium"
                android:text="Team A"
                android:textAllCaps="true"
                android:textColor="#000"
                android:textSize="20sp" />
            <TextView
                android:id="@+id/team_a_score"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginTop="30dp"
                android:fontFamily="sans-serif-light"
                android:text="0"
                android:textAllCaps="true"
                android:textColor="#000"
                android:textSize="75sp" />
            </LinearLayout>
    </LinearLayout>
</LinearLayout>
```

```

        <Button
            android:id="@+id/team_a_one_score"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="30dp"
            android:background="#fd0095ff"
            android:onClick="addScoreA"
            android:text="Add Score"
            android:textAllCaps="true"
            android:textColor="#fff"
            android:textSize="14sp" />
    </LinearLayout>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginRight="1dp"
        android:layout_weight="1"
        android:background="#fff4f4f4"
        android:gravity="center_horizontal"
        android:orientation="vertical"
        android:padding="16dp">
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:fontFamily="sans-serif-medium"
            android:text="Team B"
            android:textAllCaps="true"

            android:textColor="#000"
            android:textSize="20sp" />
        <TextView
            android:id="@+id/team_b_score"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="30dp"
            android:fontFamily="sans-serif-light"
            android:text="0"
            android:textAllCaps="true"
            android:textColor="#000"
            android:textSize="75sp" />
        <Button
            android:id="@+id/team_b_one_score"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="30dp"
            android:background="#fd0095ff"
            android:onClick="addScoreB"
            android:text="Add Score"
            android:textAllCaps="true"
            android:textColor="#fff"
            android:textSize="14sp" />
    </LinearLayout>
</LinearLayout>
<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="match_parent"
    android:gravity="center"
    android:layout_gravity="center"
    android:orientation="vertical">

```

```

        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="#ffd3d3d3"
            android:onClick="resetButton"
            android:paddingLeft="50dp"
            android:paddingRight="50dp"
            android:text="Reset"
            android:textSize="14sp" />
    </LinearLayout>
</LinearLayout>

```

MainActivity.java:

```

package com.example.scorekeeper;

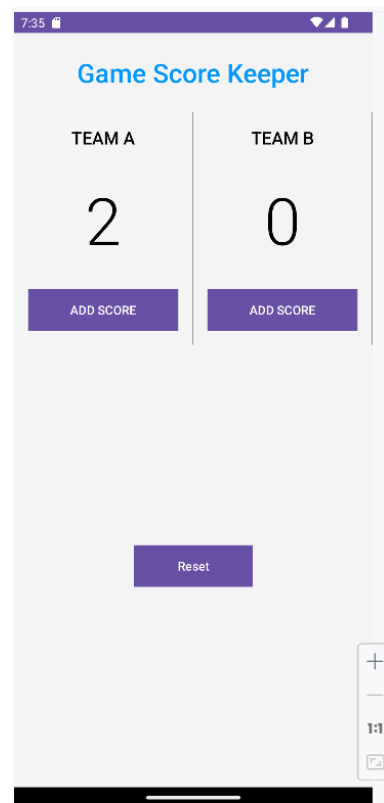
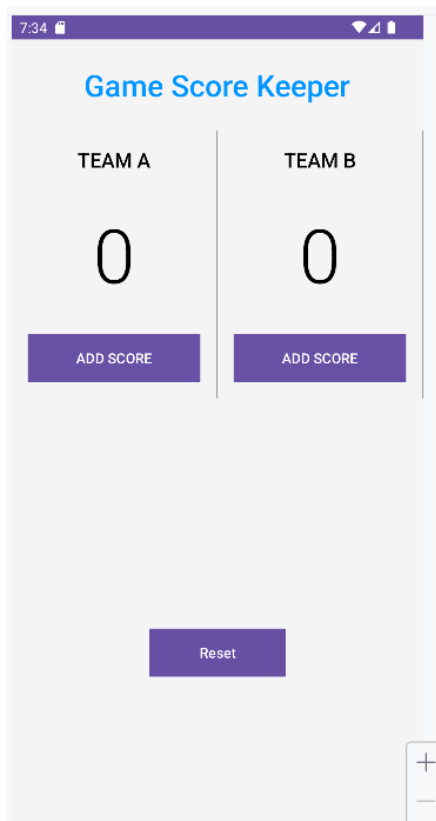
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;

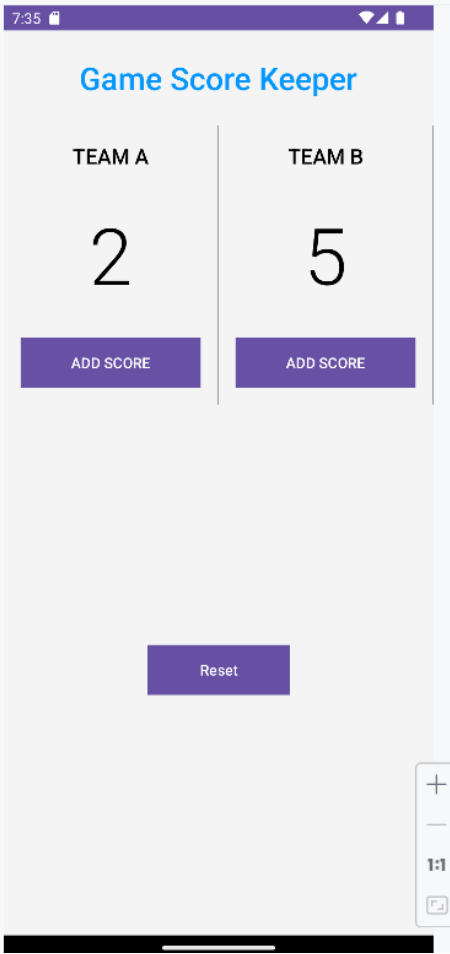
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    int scoreTemA = 0;
    int scoreTemB = 0;
    TextView scoreViewA, scoreViewB;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void addScoreA(View view) {
        scoreTemA = scoreTemA + 1;
        scoreViewA = (TextView) findViewById(R.id.team_a_score);
        scoreViewA.setText("" + scoreTemA);
    }
    public void addScoreB(View view) {
        scoreTemB = scoreTemB + 1;
        scoreViewB = (TextView) findViewById(R.id.team_b_score);
        scoreViewB.setText(String.valueOf(scoreTemB));
    }
    public void resetButton(View view) {
        scoreTemA = 0;
        scoreTemB = 0;
        scoreViewA.setText("" + scoreTemA);
        scoreViewB.setText("" + scoreTemB);
    }
}

```


output:





4 file upload:

Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/uploadButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:text="Select File" />

    <TextView
        android:id="@+id/statusTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/uploadButton"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:text=""
        android:textSize="18sp" />

    <ProgressBar
        android:id="@+id/progressBar"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/statusTextView"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:visibility="gone" />

</RelativeLayout>
```

MainActivity.java:

```
package com.example.fupload;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.os.Handler;
import android.view.View;
import android.widget.Button;
import android.widget.ProgressBar;
import android.widget.TextView;

import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private static final int PICK_FILE_REQUEST_CODE = 1;
    private TextView statusTextView;
    private ProgressBar progressBar;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
```

```

super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);

statusTextView = findViewById(R.id.statusTextView);
progressBar = findViewById(R.id.progressBar);

Button uploadButton = findViewById(R.id.uploadButton);
uploadButton.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        openFilePicker();
    }
});

private void openFilePicker() {
    Intent intent = new Intent(Intent.ACTION_GET_CONTENT);
    intent.setType("*/*");
    startActivityForResult(intent, PICK_FILE_REQUEST_CODE);
}

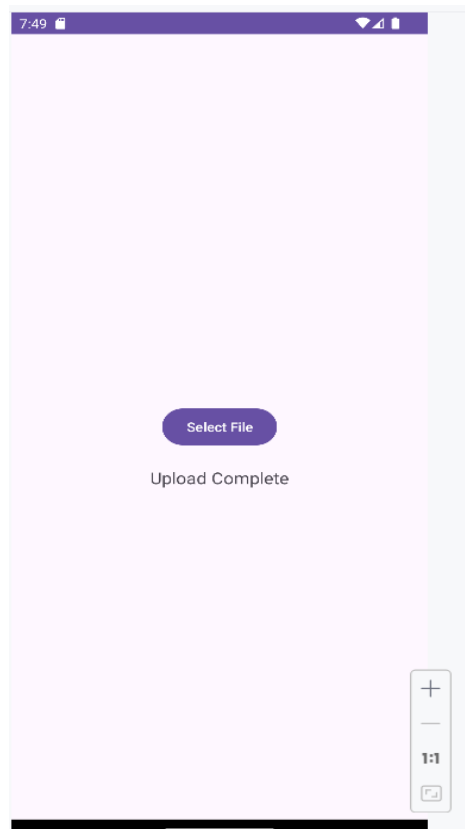
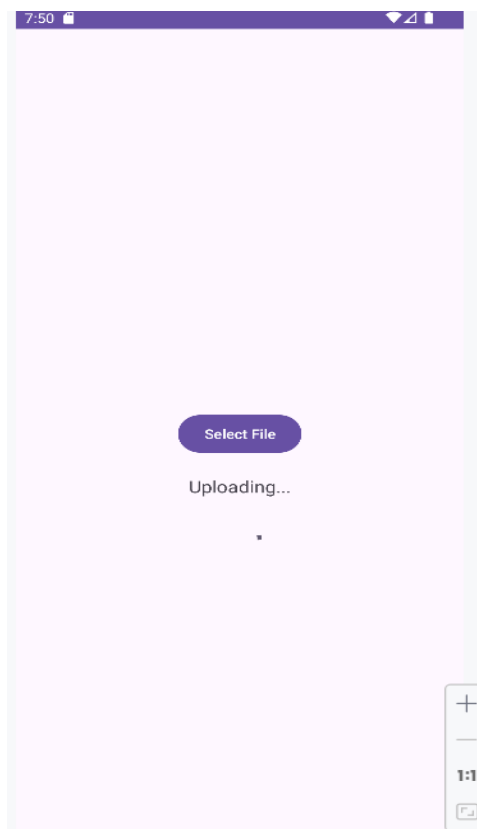
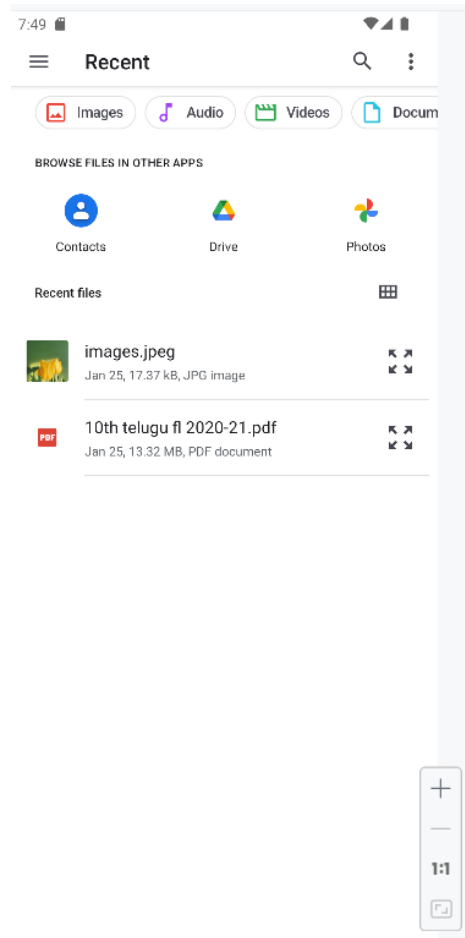
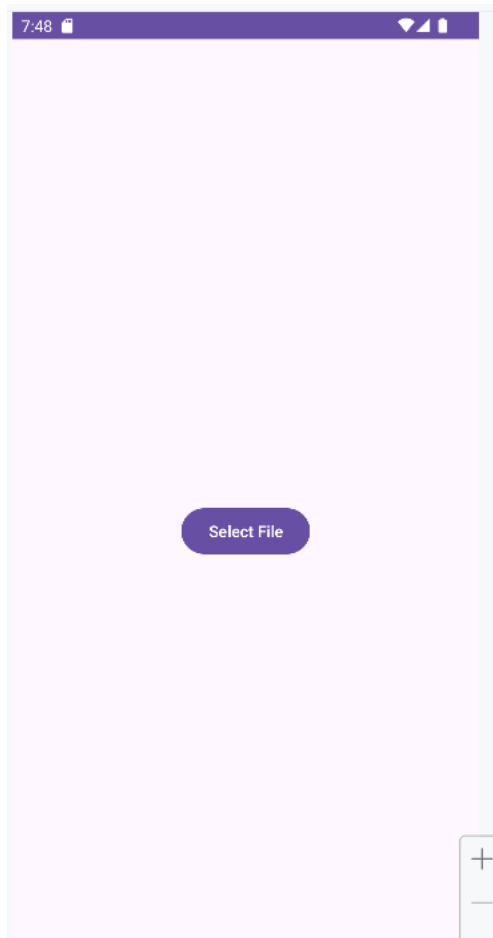
@Override
protected void onActivityResult(int requestCode, int resultCode,
@Nullable Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    if (requestCode == PICK_FILE_REQUEST_CODE && resultCode ==
RESULT_OK) {
        if (data != null) {
            Uri fileUri = data.getData();
            if (fileUri != null) {
                uploadFile(fileUri);
            }
        }
    }
}

private void uploadFile(Uri fileUri) {
    // Implement file upload logic here
    // You'll need to establish a connection to your server and send
the file
    // Update UI to show progress
    statusTextView.setText("Uploading...");
    progressBar.setVisibility(View.VISIBLE);

    // Simulate file upload with a delay
    new Handler().postDelayed(new Runnable() {
        @Override
        public void run() {
            // Update UI after upload completes
            statusTextView.setText("Upload Complete");
            progressBar.setVisibility(View.GONE);
        }
    }, 3000); // Simulating a 3-second delay
}
}

```

Output:



5 location

Activity_main.xml:

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/locationTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:textSize="18sp" />

</RelativeLayout>
```

MainActivity.java:

```
package com.example.locationfind;

import android.Manifest;
import android.content.pm.PackageManager;
import android.location.Location;
import android.os.Bundle;
import android.widget.TextView;
import android.widget.Toast;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;

import com.google.android.gms.location.FusedLocationProviderClient;
import com.google.android.gms.location.LocationServices;

public class MainActivity extends AppCompatActivity {

    private static final int LOCATION_PERMISSION_REQUEST_CODE = 1001;
    private FusedLocationProviderClient fusedLocationClient;
    private TextView locationTextView;

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

        locationTextView = findViewById(R.id.locationTextView);
        fusedLocationClient =
LocationServices.getFusedLocationProviderClient(this);

        getLocation();
    }

    private void getLocation() {
        if (ContextCompat.checkSelfPermission(this,
Manifest.permission.ACCESS_FINE_LOCATION) !=
PackageManager.PERMISSION_GRANTED) {
            ActivityCompat.requestPermissions(this, new
String[]{Manifest.permission.ACCESS_FINE_LOCATION},
```

```

LOCATION_PERMISSION_REQUEST_CODE);
    } else {

fusedLocationClient.getLastLocation().addOnSuccessListener(this, location -
> {
    if (location != null) {
        double latitude = location.getLatitude();
        double longitude = location.getLongitude();
        locationTextView.setText("Latitude: " + latitude +
"\nLongitude: " + longitude);
    } else {
        Toast.makeText(MainActivity.this, "Unable to retrieve
location", Toast.LENGTH_SHORT).show();
    }
});
    }

@Override
public void onRequestPermissionsResult(int requestCode, @NonNull
String[] permissions, @NonNull int[] grantResults) {
    super.onRequestPermissionsResult(requestCode, permissions,
grantResults);
    if (requestCode == LOCATION_PERMISSION_REQUEST_CODE) {
        if (grantResults.length > 0 && grantResults[0] ==
PackageManager.PERMISSION_GRANTED) {
            getLocation();
        } else {
            Toast.makeText(this, "Location permission denied",
Toast.LENGTH_SHORT).show();
        }
    }
}
}
}

```

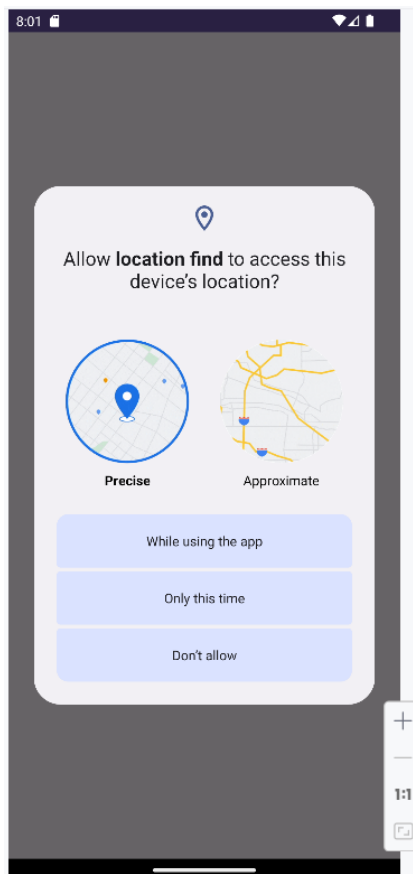
AndroidManifest.xml:

```

<uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION"/>
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION"/>
<uses-permission
android:name="android.permission.ACCESS_BACKGROUND_LOCATION"/>

```

Output:



6 dictionary

Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/edit_text"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter word"
        android:layout_marginTop="16dp"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="16dp"/>

    <Button
        android:id="@+id/search_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/edit_text"
        android:layout_marginTop="16dp"
        android:layout_marginStart="16dp"
        android:text="Search"/>

    <TextView
        android:id="@+id/result_text_view"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/search_button"
        android:layout_marginTop="16dp"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="16dp"
        android:text=""
        android:textSize="18sp"/>

</RelativeLayout>
```

mainActivity.java:

```
package com.example.dictionary;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import java.util.HashMap;
import java.util.Map;

public class MainActivity extends AppCompatActivity {
    private EditText editText;
    private Button searchButton;
    private TextView resultTextView;
```

```

private Map<String, String> dictionary;

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

    // Initialize UI components
    editText = findViewById(R.id.edit_text);
    searchButton = findViewById(R.id.search_button);
    resultTextView = findViewById(R.id.result_text_view);

    // Initialize dictionary data
    dictionary = new HashMap<>();
    // Populate dictionary (Replace with your own words and
definitions)
    dictionary.put("apple", "A fruit");
    dictionary.put("banana", "Another fruit");
    dictionary.put("computer", "An electronic device");
    dictionary.put("android", "operating sytem");
    dictionary.put("java", "programming language");
    // Set click listener for search button
    searchButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            // Get the word entered by the user
            String word = editText.getText().toString().trim();

            // Check if the word exists in the dictionary
            if (dictionary.containsKey(word)) {
                // If yes, display the definition
                String definition = dictionary.get(word);
                resultTextView.setText(definition);
            } else {
                // If not, display a message indicating that the word
is not found
                Toast.makeText(MainActivity.this, "Word not found",
Toast.LENGTH_SHORT).show();
                resultTextView.setText("");
            }
        }
    });
}

```

output:



7 quiz

Activity_main.xml:

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"

    android:padding="25dp"
    tools:context=".MainActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/quesTop"
        android:text="Questions"
        android:layout_centerHorizontal="true"
        android:textSize="25dp"/>

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/question"
        android:textStyle="bold"
        android:text="Question will come here"
        android:textColor="@color/black"
        android:textSize="25dp"
        android:textAlignment="center"
        android:layout_margin="20dp"
        android:layout_above="@+id/choice_layout" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/choice_layout"
        android:layout_centerInParent="true"
        android:orientation="vertical">
        <Button
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:id="@+id/ansA"
            android:layout_margin="5dp"

            android:text="Answer A"
            android:backgroundTint="@color/white"
            android:textColor="@color/black"/>

        <Button
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="5dp"
            android:id="@+id/ansB"
            android:text="Answer B"
            android:backgroundTint="@color/white"
            android:textColor="@color/black"/>
        <Button
            android:layout_width="match_parent"
```

```

        android:layout_height="wrap_content"
        android:layout_margin="5dp"
        android:id="@+id/ansC"
        android:text="Answer C"
        android:backgroundTint="@color/white"
        android:textColor="@color/black"/>
    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="5dp"
        android:id="@+id/ansD"
        android:text="Answer D"
        android:backgroundTint="@color/white"
        android:textColor="@color/black"/>
</LinearLayout>
<Button
    android:id="@+id/submitBtn"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_below="@+id/choice_layout"
    android:layout_marginTop="50dp"
    android:text="Submit" />
</RelativeLayout>
MainActivity.java:

package com.example.quiz;

import androidx.appcompat.app.AppCompatActivity;
import android.app.AlertDialog;
import android.graphics.Color;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity implements
View.OnClickListener {
    TextView questStatus;
    TextView displayQuestion;
    Button optA, optB, optC, optD, submit;
    int score=0;
    int totQuestion=QuesAns.questions.length;
    int questionIndex=0;
    String selectedAnswer="";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);
        questStatus = (TextView) findViewById(R.id.quesTop);
        displayQuestion=(TextView) findViewById(R.id.question);
        optA=(Button) findViewById(R.id.ansA);
        optB=(Button) findViewById(R.id.ansB);
        optC=(Button) findViewById(R.id.ansC);
        optD=(Button) findViewById(R.id.ansD);
        submit=(Button) findViewById(R.id.submitBtn);
        optA.setOnClickListener(this);
        optB.setOnClickListener(this);
        optC.setOnClickListener(this);
        optD.setOnClickListener(this);
        submit.setOnClickListener(this);

```

```

        questStatus.setText("Question " + questionIndex+1 + " / " +
totQuestion);
        loadNewQuestion();
    }
    @Override
    public void onClick(View view) {
        optA.setBackgroundColor(Color.WHITE);
        optB.setBackgroundColor(Color.WHITE);
        optC.setBackgroundColor(Color.WHITE);
        optD.setBackgroundColor(Color.WHITE);
        Button clickedButton = (Button) view;
        if(clickedButton.getId() == R.id.submitBtn){
            if(selectedAnswer==QuesAns.answer[questionIndex]){
                score++;
            }
            questionIndex++;
            loadNewQuestion();
        }
        else{
            selectedAnswer = clickedButton.getText().toString();
            clickedButton.setBackgroundColor(Color.CYAN);
        }
    }
    void loadNewQuestion() {
        if(questionIndex==totQuestion){
            endQuiz();
            return;
        }
        questStatus.setText("Question " + (questionIndex+1) + " / " +
totQuestion);

```

```

        displayQuestion.setText(QuesAns.questions[questionIndex]);
        optA.setText(QuesAns.choices[questionIndex][0]);
        optB.setText(QuesAns.choices[questionIndex][1]);
        optC.setText(QuesAns.choices[questionIndex][2]);
        optD.setText(QuesAns.choices[questionIndex][3]);
    }
    void endQuiz(){
        new AlertDialog.Builder(this)
            .setTitle("You have answered " + score + " Correctly")
            .setPositiveButton("Start Again", ((dialog, which) ->
restart()))
            .setCancelable(false)
            .show();
    }
    private void restart() {
        score=questionIndex=0;
        loadNewQuestion();
    }
}

```

QuesAns.java:

```

package com.example.quiz;

public class QuesAns {

    public static String questions[]={

```

```

        "Which company owns Android",
        "Who is the CEO of Google and alphabet",
        "What is the Android mascot (unofficially) known as?",
        "Android OS was initially designed for _____ devices"
    };
    public static String choices[][]={
        {"Google", "Linux", "Microsoft", "Apple"},
        {"Sathya Nandella", "Sundar Pichai", "Elon Musk", "Larry
Page"},
        {"Android", "Bugdroid", "Candroid", "Dandroid"},
        {"Computers", "Washing Machines", "Robots", "Digital
Cameras"}
    };
    public static String answer[]={
        "Google",
        "Sundar Pichai",
        "Bugdroid",
        "Digital Cameras"
    };
}

```

output:

