1. **activity\_main.xml (Home Screen)**

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp"

android:gravity="center">

<!-- Start Quiz Button -->

<Button

android:id="@+id/start\_quiz\_button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Start Quiz"

android:textSize="18sp"

android:layout\_marginBottom="20dp"/>

<!-- Select Category Button (Optional) -->

<Button

android:id="@+id/select\_category\_button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Select Category"

android:textSize="18sp"/>

</LinearLayout>

1. **activity\_quiz.xml (Quiz Screen)**

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp">

<!-- Question Text -->

<TextView

android:id="@+id/question\_text"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Question will appear here"

android:textSize="18sp"

android:layout\_marginBottom="20dp"/>

<!-- Options (Multiple Choice) -->

<RadioGroup

android:id="@+id/options\_radio\_group"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical">

<!-- Radio Buttons will be added programmatically -->

</RadioGroup>

<!-- Next Button -->

<Button

android:id="@+id/next\_button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Next Question"

android:textSize="18sp"

android:layout\_marginTop="20dp"/>

</LinearLayout>

1. **activity\_result.xml (Results Screen)**

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp"

android:gravity="center">

<!-- Score Text -->

<TextView

android:id="@+id/score\_text"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Score: 0"

android:textSize="24sp"

android:layout\_marginBottom="20dp"/>

<!-- Restart Quiz Button -->

<Button

android:id="@+id/restart\_button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Restart Quiz"

android:textSize="18sp"/>

</LinearLayout>

1. **MainActivity.java (Home Screen)**

package com.example.quizapp;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private Button startQuizButton, selectCategoryButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

startQuizButton = findViewById(R.id.start\_quiz\_button);

selectCategoryButton = findViewById(R.id.select\_category\_button);

// Start quiz button click listener

startQuizButton.setOnClickListener(v -> {

Intent intent = new Intent(MainActivity.this, QuizActivity.class);

startActivity(intent);

});

// Select category button click listener (optional)

selectCategoryButton.setOnClickListener(v -> {

// Implement category selection if needed

});

}

}

1. **QuizActivity.java (Quiz Screen)**

package com.example.quizapp;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.RadioButton;

import android.widget.RadioGroup;

import android.widget.TextView;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import java.util.ArrayList;

import java.util.List;

public class QuizActivity extends AppCompatActivity {

private TextView questionText;

private RadioGroup optionsRadioGroup;

private Button nextButton;

private int currentQuestionIndex = 0;

private int score = 0;

// Dummy data: List of questions and options

private List<Question> questions;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_quiz);

questionText = findViewById(R.id.question\_text);

optionsRadioGroup = findViewById(R.id.options\_radio\_group);

nextButton = findViewById(R.id.next\_button);

// Initialize questions

questions = new ArrayList<>();

questions.add(new Question("What is 2 + 2?", new String[]{"3", "4", "5", "6"}, 1));

questions.add(new Question("What is the capital of France?", new String[]{"Berlin", "Madrid", "Paris", "Rome"}, 2));

// Add more questions...

// Load the first question

loadNextQuestion();

// Next button click listener

nextButton.setOnClickListener(v -> {

// Check if the selected answer is correct

int selectedId = optionsRadioGroup.getCheckedRadioButtonId();

RadioButton selectedRadioButton = findViewById(selectedId);

if (selectedRadioButton != null && questions.get(currentQuestionIndex).getCorrectAnswerIndex() == optionsRadioGroup.indexOfChild(selectedRadioButton)) {

score++;

}

currentQuestionIndex++;

if (currentQuestionIndex < questions.size()) {

loadNextQuestion();

} else {

showResults();

}

});

}

private void loadNextQuestion() {

// Display the current question and options

Question currentQuestion = questions.get(currentQuestionIndex);

questionText.setText(currentQuestion.getQuestionText());

optionsRadioGroup.removeAllViews();

for (String option : currentQuestion.getOptions()) {

RadioButton radioButton = new RadioButton(this);

radioButton.setText(option);

optionsRadioGroup.addView(radioButton);

}

}

private void showResults() {

// Show the results activity with the score

Intent intent = new Intent(QuizActivity.this, ResultActivity.class);

intent.putExtra("SCORE", score);

startActivity(intent);

finish();

}

}

**6. ResultActivity.java (Results Screen)**

package com.example.quizapp;

import android.content.Intent;

import android.os.Bundle;

import android.widget.Button;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class ResultActivity extends AppCompatActivity {

private TextView scoreText;

private Button restartButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_result);

scoreText = findViewById(R.id.score\_text);

restartButton = findViewById(R.id.restart\_button);

// Get the score passed from QuizActivity

int score = getIntent().getIntExtra("SCORE", 0);

scoreText.setText("Your Score: " + score);

restartButton.setOnClickListener(v -> {

Intent intent = new Intent(ResultActivity.this, MainActivity.class);

startActivity(intent);

finish();

});

}

}

**Creating the Question Model:**

public class Question {

private String questionText;

private String[] options;

private int correctAnswerIndex;

public Question(String questionText, String[] options, int correctAnswerIndex) {

this.questionText = questionText;

this.options = options;

this.correctAnswerIndex = correctAnswerIndex;

}

public String getQuestionText() {

return questionText;

}

public String[] getOptions() {

return options;

}

public int getCorrectAnswerIndex() {

return correctAnswerIndex;

}

}