

## MOBILE APPLICATION PROGRAMMING LAB

### PRACTICAL-3

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**ROLL NO: 69**

**BATCH: A4**

**AIM:** 3. Design an application for conducting an aptitude test with Multiple-choice questions. Each question would have 4 options. When the submit button is clicked the marks along with no of questions attempted, and the percentage of marks should be displayed in a new activity. Assume a suitable weightage of a mark for each question.

#### MAINACTIVITY.JAVA CODE:

```
package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    private RadioGroup[] questionOptions;
    private Button submitButton;
    private int currentQuestion = 0; // Track the current question

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        // Initialize RadioGroups and Submit Button
        questionOptions = new RadioGroup[5];
        questionOptions[0] = findViewById(R.id.question1Options);
        questionOptions[1] = findViewById(R.id.question2Options);
        questionOptions[2] = findViewById(R.id.question3Options);
        questionOptions[3] = findViewById(R.id.question4Options);
        questionOptions[4] = findViewById(R.id.question5Options);
        submitButton = findViewById(R.id.submitButton);
        // Set a click listener for the Submit button
        submitButton.setOnClickListener(new View.OnClickListener() {
            @Override
```

```

        public void onClick(View v) {
// Initialize an array to store user answers
        String[] userAnswers = new String[5];
// Get user-selected answers for each question
        for (int i = 0; i < questionOptions.length; i++) {
            int selectedRadioButtonId =
                questionOptions[i].getCheckedRadioButtonId();
            if (selectedRadioButtonId != -1) {
                RadioButton selectedRadioButton =
                    findViewById(selectedRadioButtonId);
                userAnswers[i] =
                    selectedRadioButton.getText().toString();
            } else {
// If any question is unanswered, show a message and exit
                Toast.makeText(MainActivity.this, "Please answer
all questions.", Toast.LENGTH_SHORT).show();
                return;
            }
        }
// Process user answers (you can compare them with correct answers here)
// For this example, let's assume correct answers
        String[] correctAnswers = {"D) Paris", "B) Python", "B)
useEffect", "C) Mongo", "D) Lite"};
        int score = 0;
        for (int i = 0; i < correctAnswers.length; i++) {
            if (userAnswers[i].equals(correctAnswers[i])) {
                score++;
            }
        }
// Display the user's score
        int totalQuestions = correctAnswers.length;
        double percentage = (score * 100.0) / totalQuestions;

        Intent intent = new Intent(MainActivity.this,
MainActivity2.class);
        intent.putExtra("score", score);
        intent.putExtra("percentage", percentage);

        // Start the ResultActivity
        startActivity(intent);
    }
}
}
}

```

## XML:

```

<?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">
    <TextView
        android:layout_height="wrap_content"
        android:layout_width="match_parent"
        android:fontFamily="sans-serif-black"

```

```

        android:text="MCQ TEST-JAVA"
        android:textColor="@color/black"
        android:textSize="20sp"
        android:gravity="center_horizontal"/>
<TextView
    android:layout_height="wrap_content"
    android:layout_width="match_parent"
    android:fontFamily="sans-serif-black"
    android:text="BY-Vedant Bhutada"
    android:layout_marginTop="10dp"
    android:textColor="@color/black"
    android:textSize="20sp"
    android:gravity="center_horizontal"/>
<TextView
    android:layout_height="wrap_content"
    android:layout_width="match_parent"
    android:fontFamily="sans-serif-black"
    android:layout_marginTop="10dp"
    android:text="Answer the below five mcq questions:-"
    android:textColor="@color/black"
    android:textSize="20sp"
    android:gravity="center_horizontal"/>
<!-- Question 1 -->
<TextView
    android:id="@+id/question1TextView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    android:textSize="19sp"
    android:textColor="@color/black"
    android:text="1) What is the capital of France?" />
<RadioGroup
    android:id="@+id/question1Options"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <RadioButton
        android:id="@+id/question1OptionA"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textColor="@color/black"
        android:text="A) London" />
    <RadioButton
        android:id="@+id/question1OptionB"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="B) Berlin" />
    <RadioButton
        android:id="@+id/question1OptionC"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="C) Madrid" />
    <RadioButton
        android:id="@+id/question1OptionD"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="D) Paris" />
</RadioGroup>
<!-- Question 2 -->
<TextView
    android:id="@+id/question2TextView"

```

```

        android:layout_width="match_parent"
        android:textColor="@color/black"
        android:layout_height="wrap_content"
        android:textSize="19sp"
        android:text="2) Which of the following is a scripting language?"
    />
    <RadioGroup
        android:id="@+id/question2Options"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        <RadioButton
            android:id="@+id/question2OptionA"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="A) Java" />
        <RadioButton
            android:id="@+id/question2OptionB"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="B) Python" />
        <RadioButton
            android:id="@+id/question2OptionC"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="C) C++" />
        <RadioButton
            android:id="@+id/question2OptionD"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="D) HTML" />
    </RadioGroup>
    <!-- Question 3 -->
    <TextView
        android:id="@+id/question3TextView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textColor="@color/black"
        android:textSize="19sp"
        android:text="3) Which React hook is used to perform side effects?"
    />
    <RadioGroup
        android:id="@+id/question3Options"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        <RadioButton
            android:id="@+id/question3OptionA"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="A) use" />
        <RadioButton
            android:id="@+id/question3OptionB"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="B) Effect" />
        <RadioButton
            android:id="@+id/question3OptionC"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="C) Context" />

```

```

        <RadioButton
            android:id="@+id/question3OptionD"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="D) useMemo" />
    </RadioGroup>
    <!-- Question 4 -->
    <TextView
        android:id="@+id/question4TextView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textColor="@color/black"
        android:textSize="19sp"
        android:text="4) Which of the following is a NoSQL database?" />
    <RadioGroup
        android:id="@+id/question4Options"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        <RadioButton
            android:id="@+id/question4OptionA"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="A) MySQL" />
        <RadioButton
            android:id="@+id/question4OptionB"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="B) Postgre " />
        <RadioButton
            android:id="@+id/question4OptionC"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="C) Mongo" />
        <RadioButton
            android:id="@+id/question4OptionD"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="D) Lite" />
    </RadioGroup>
    <!-- Question 5 -->
    <TextView
        android:id="@+id/question5TextView"
        android:layout_width="match_parent"
        android:textColor="@color/black"
        android:layout_height="wrap_content"
        android:textSize="19sp"
        android:text="5) Who invented Java?" />
    <!-- Next Button -->
    <RadioGroup
        android:id="@+id/question5Options"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        <RadioButton
            android:id="@+id/question5OptionA"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="A) Gates" />
        <RadioButton
            android:id="@+id/question5OptionB"

```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="B) Zuckerberg" />
<RadioButton
    android:id="@+id/question5OptionC"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="C) Jobs" />
<RadioButton
    android:id="@+id/question5OptionD"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="D) Gosling" />
</RadioGroup>
<Button
    android:id="@+id/submitButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    android:layout_gravity="center" />
</LinearLayout>

```

## MAINACTIVITY2.JAVA CODE:

```

package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);

        // Retrieve the score and percentage from the intent extras
        Intent intent = getIntent();
        int score = intent.getIntExtra("score", 0);
        double percentage = intent.getDoubleExtra("percentage", 0.0);

        // Display the score and percentage in TextViews
        TextView scoreTextView = findViewById(R.id.scoreTextView);
        TextView percentageTextView =
            findViewById(R.id.percentageTextView);

        scoreTextView.setText("Your score: " + score);
        percentageTextView.setText("Percentage: " + percentage + "%");
    }
}

```

## XML2:

```
<!-- res/layout/activity_result.xml -->

<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Quiz Result"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_marginTop="16dp"/>

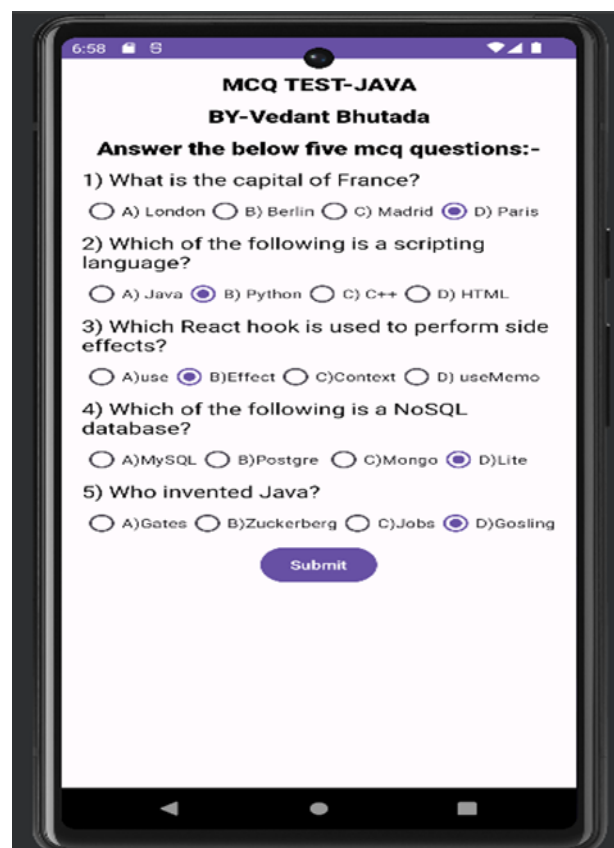
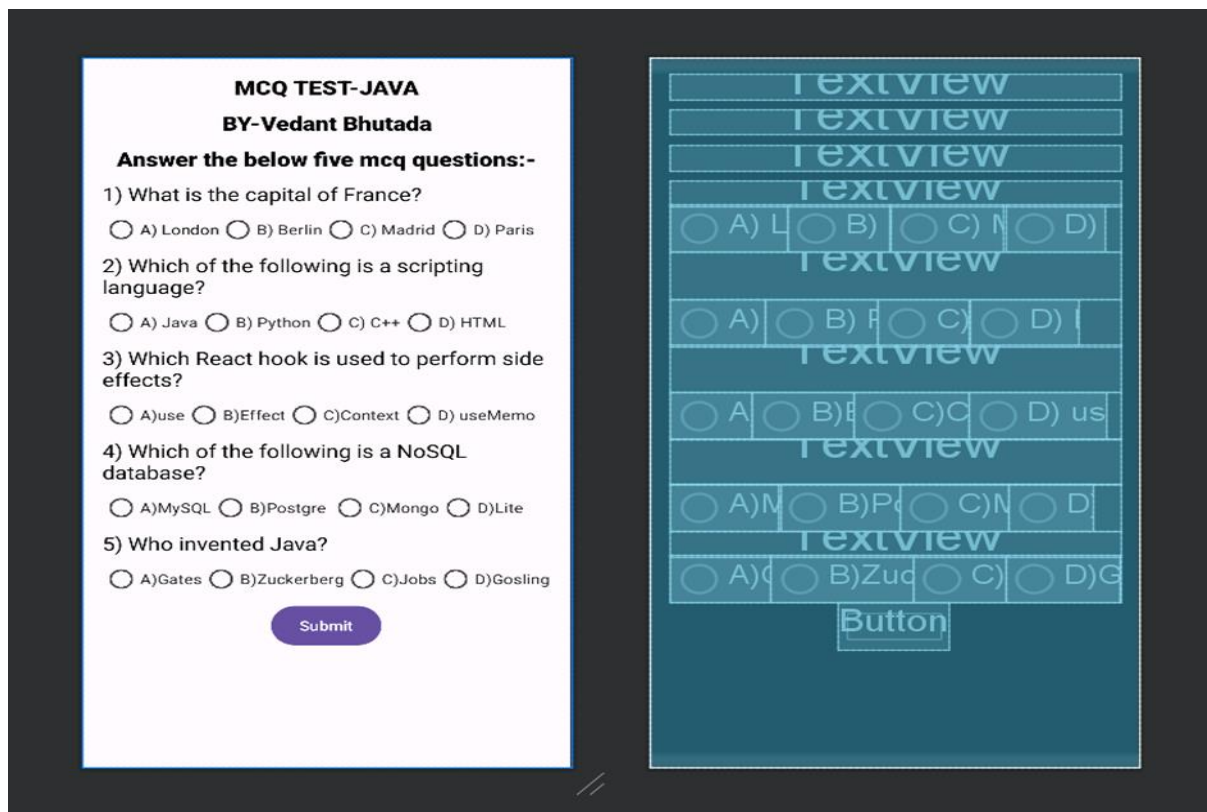
    <TextView
        android:id="@+id/scoreTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=""
        android:textSize="20sp"
        android:layout_marginTop="32dp"/>

    <TextView
        android:id="@+id/percentageTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=""
        android:textSize="20sp"
        android:layout_marginTop="16dp"/>

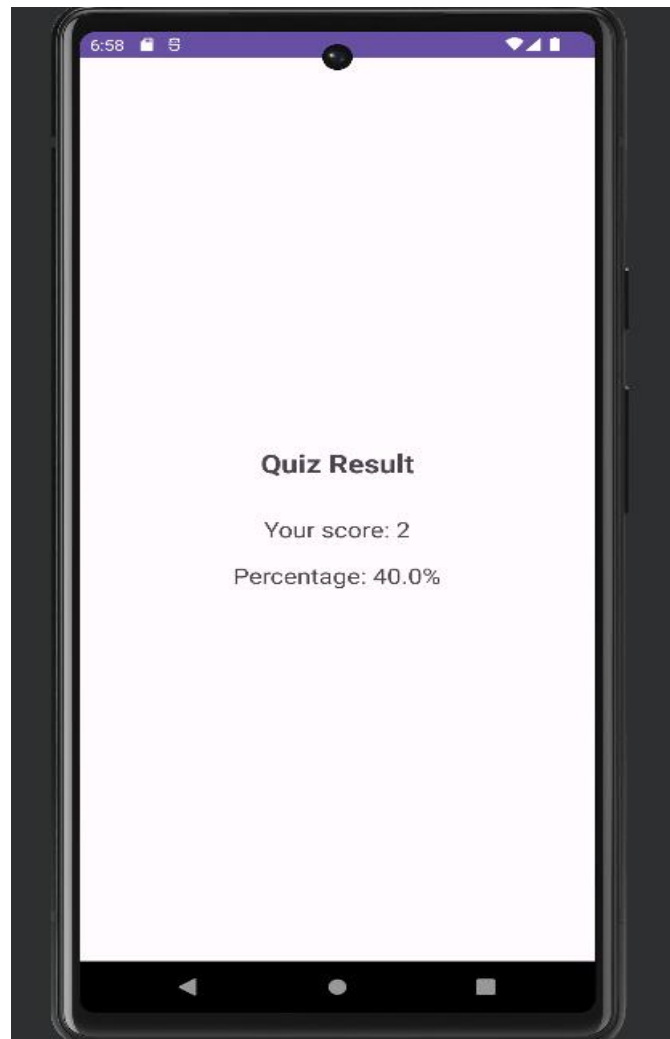
    <!-- Add any additional UI elements or customization as needed -->

</LinearLayout>
```

## OUTPUT:







**CONCLUSION:** In this practical we successfully implemented the linking of 2 activities using intent in android studio.