Mobile Computing Lab
Aim: Write a Program for simple quiz competition Android/other.

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1 Main Activity.java

```java
package com.example.myapplication;



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;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;



public class MainActivity extends AppCompatActivity {


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        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;
        });
        Button calc = (Button) findViewById(R.id.calculate_score);
        calc.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int count = 0;
                RadioButton o1 = findViewById(R.id.radioButton2);
                RadioButton o2 = findViewById(R.id.radioButton2_2);
                RadioButton o3 = findViewById(R.id.radioButton3_1);
                RadioButton o4 = findViewById(R.id.radioButton4_3);
                count+= o1.isChecked()?1:0;
                count+= o2.isChecked()?1:0;
                count+= o3.isChecked()?1:0;
                count+= o4.isChecked()?1:0;
                TextView score = (TextView) findViewById(R.id.score_text);
```

```java
                    score.setText("Score : "+count);
                }
            });
        }


}
```

main activity.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.appcompat.widget.LinearLayoutCompat 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:layout_width="match_parent"
  android:layout_height="match_parent"
  android:orientation="vertical"
  tools:context=".MainActivity"
  >
<ScrollView
    android:layout_width="match_parent"
    android:layout_height="match_parent">


    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical" >
        <androidx.cardview.widget.CardView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="4dp">
            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:orientation="vertical">
                <TextView
                    android:paddingVertical="16dp"
                    android:paddingStart="16dp"
                    android:layout_width="match_parent"
                    android:layout_height="wrap_content"
                    android:text="What is capital of India?"
                    android:textSize="12pt"
                    />
                <RadioGroup
                    android:layout_width="match_parent"
                    android:layout_height="wrap_content"
```

```xml
                        android:paddingLeft="16dp"
                        >


                    <RadioButton
                        android:id="@+id/radioButton2_1"
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:text="Mumbai"
                        android:textSize="8pt"/>
                    <RadioButton
                        android:id="@+id/radioButton2_2"
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:text="Delhi"
                        android:textSize="8pt"/>
                    <RadioButton
                        android:id="@+id/radioButton2_3"
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:text="Banglore"
                        android:textSize="8pt"/>
                    <RadioButton
                        android:id="@+id/radioButton2_4"
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:text="Bangladesh"
                        android:textSize="8pt"/>
                </RadioGroup>


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


<androidx.cardview.widget.CardView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="4dp">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">


        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:paddingVertical="16dp"
            android:paddingStart="16dp"
```

```xml
                android:text="What is National Bird of India?"
                android:textSize="12pt" />
        <RadioGroup
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:paddingLeft="16dp"
            >


            <RadioButton
                android:id="@+id/radioButton1"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Hen"
                android:textSize="8pt"/>
            <RadioButton
                android:id="@+id/radioButton2"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Peacock"
                android:textSize="8pt"/>
            <RadioButton
                android:id="@+id/radioButton3"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="crow"
                android:textSize="8pt"/>
            <RadioButton
                android:id="@+id/radioButton4"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Sparrow"
                android:textSize="8pt"/>
        </RadioGroup>


    </LinearLayout>


</androidx.cardview.widget.CardView>


<androidx.cardview.widget.CardView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="4dp">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">
```

```xml
        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:paddingVertical="16dp"
            android:paddingStart="16dp"
            android:text="Winner of FIFA 2024?"
            android:textSize="12pt" />
        <RadioGroup
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:paddingLeft="16dp"
            >


            <RadioButton
                android:id="@+id/radioButton3_1"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Argentina"
                android:textSize="8pt"/>
            <RadioButton
                android:id="@+id/radioButton3_2"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="France"
                android:textSize="8pt"/>
            <RadioButton
                android:id="@+id/radioButton3_3"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="New Zealand"
                android:textSize="8pt"/>
            <RadioButton
                android:id="@+id/radioButton3_4"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Brazil"
                android:textSize="8pt"/>
        </RadioGroup>


    </LinearLayout>


</androidx.cardview.widget.CardView>


<androidx.cardview.widget.CardView
```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_margin="4dp">
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">


    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:paddingVertical="16dp"
        android:paddingStart="16dp"
        android:text="Number of colours in rainbow?"
        android:textSize="12pt" />
<RadioGroup
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:paddingLeft="16dp"
    >


    <RadioButton
        android:id="@+id/radioButton4_1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="3"
        android:textSize="8pt"/>
    <RadioButton
        android:id="@+id/radioButton4_2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="5"
        android:textSize="8pt"/>
    <RadioButton
        android:id="@+id/radioButton4_3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="7"
        android:textSize="8pt"/>
    <RadioButton
        android:id="@+id/radioButton4_4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="9"
        android:textSize="8pt"/>
</RadioGroup>
```

```
                    </LinearLayout>


            </androidx.cardview.widget.CardView>


            <TextView
                android:id="@+id/score_text"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:padding="16dp"
                android:textSize="12pt"
                android:text="Score : "/>
            <Button
                android:id="@+id/calculate_score"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:textSize="10pt"
                android:layout_marginHorizontal="16dp"
                android:text="Calulate"/>
        </LinearLayout>
    </ScrollView>
</androidx.appcompat.widget.LinearLayoutCompat>
```
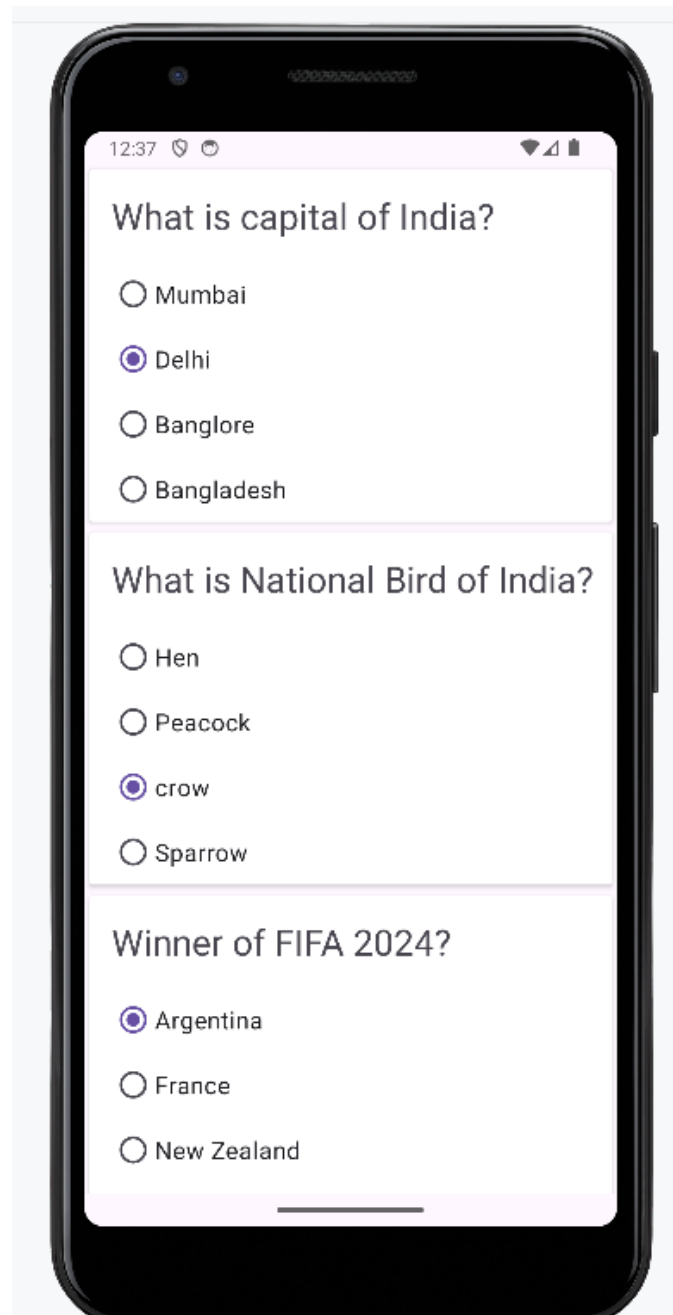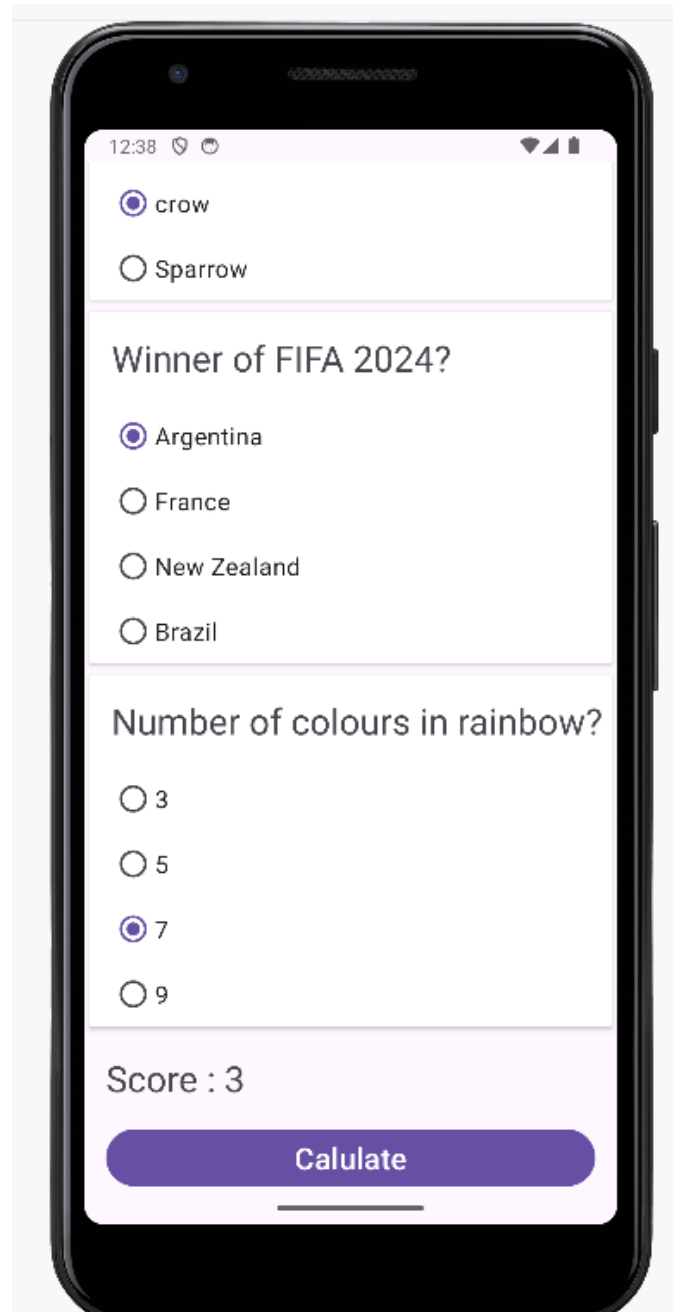
output

Figure 1: selection of options

Figure 2: Quiz Score