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**Course :-** BCA

**Subject :-** Android Studio

**Std id :-** 20041209

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**Practical-3**

**Objective:** Implementation of radio button and checkbox in android program

**CODE:**

**XML CODE:**

<?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:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="#FFFFFF"

android:textAlignment="center"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView2"

android:layout\_width="422dp"

android:layout\_height="46dp"

android:background="#2215D3"

android:fontFamily="serif"

android:scaleX="1"

android:scaleY="1"

android:text="REPORT CARD"

android:textAlignment="center"

android:textColor="#CAB922"

android:textSize="34sp"

android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.545"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView9"

android:layout\_width="214dp"

android:layout\_height="27dp"

android:background="#2FFFFFFF"

android:fontFamily="sans-serif-smallcaps"

android:scaleX="1"

android:scaleY="1"

android:text="SELECT CLASS"

android:textAlignment="center"

android:textColor="#CAB922"

android:textSize="24sp"

android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView2"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView16"

android:layout\_width="214dp"

android:layout\_height="27dp"

android:background="#FFFFFF"

android:fontFamily="sans-serif-smallcaps"

android:scaleX="1"

android:scaleY="1"

android:text="ENTER MARKS"

android:textAlignment="center"

android:textColor="#CAB922"

android:textSize="24sp"

android:textStyle="bold"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/radioGroup" />

<TextView

android:id="@+id/textView17"

android:layout\_width="303dp"

android:layout\_height="35dp"

android:background="#FFFFFF"

android:fontFamily="sans-serif-smallcaps"

android:scaleX="1"

android:scaleY="1"

android:text="select choice to display"

android:textAlignment="center"

android:textColor="#CAB922"

android:textSize="24sp"

android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.462"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView8"

app:layout\_constraintVertical\_bias="0.028" />

<TextView

android:id="@+id/textView3"

android:layout\_width="125dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:paddingStart="10dp"

android:paddingTop="10dp"

android:paddingBottom="10dp"

android:text="english"

android:textAlignment="textStart"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.024"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView16"

app:layout\_constraintVertical\_bias="0.028" />

<TextView

android:id="@+id/textView5"

android:layout\_width="125dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:paddingStart="10dp"

android:paddingTop="10dp"

android:paddingBottom="10dp"

android:text="Hindi"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.024"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView3"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView6"

android:layout\_width="125dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:paddingStart="10dp"

android:paddingTop="10dp"

android:paddingBottom="10dp"

android:text="Maths"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.024"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView5"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView7"

android:layout\_width="125dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:paddingStart="10dp"

android:paddingBottom="10dp"

android:text="science"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.024"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView6"

app:layout\_constraintVertical\_bias="0.002" />

<TextView

android:id="@+id/textView8"

android:layout\_width="125dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:paddingStart="10dp"

android:paddingTop="10dp"

android:text="social science"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.024"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView7"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView12"

android:layout\_width="125dp"

android:layout\_height="27dp"

android:background="#FFFFFF"

android:paddingStart="10dp"

android:paddingTop="4dp"

android:paddingBottom="4dp"

android:text="result"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.272"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView11"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView10"

android:layout\_width="125dp"

android:layout\_height="27dp"

android:background="#FAFAFB"

android:paddingStart="7dp"

android:paddingTop="4dp"

android:paddingBottom="4dp"

android:text="total"

android:textSize="16sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.272"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/button"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView13"

android:layout\_width="125dp"

android:layout\_height="27dp"

android:background="#FFFFFF"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toEndOf="@+id/textView10"

app:layout\_constraintTop\_toBottomOf="@+id/button"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView14"

android:layout\_width="125dp"

android:layout\_height="27dp"

android:background="#FCFCFC"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toEndOf="@+id/textView11"

app:layout\_constraintTop\_toBottomOf="@+id/textView13"

app:layout\_constraintVertical\_bias="0.011" />

<TextView

android:id="@+id/textView15"

android:layout\_width="125dp"

android:layout\_height="27dp"

android:background="#FFFFFF"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toEndOf="@+id/textView12"

app:layout\_constraintTop\_toBottomOf="@+id/textView14"

app:layout\_constraintVertical\_bias="0.0" />

<TextView

android:id="@+id/textView11"

android:layout\_width="125dp"

android:layout\_height="27dp"

android:background="#FFFFFF"

android:paddingStart="10dp"

android:paddingTop="4dp"

android:paddingBottom="4dp"

android:text="percentage"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.272"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView10"

app:layout\_constraintVertical\_bias="0.011" />

<EditText

android:id="@+id/editTextTextPersonName2"

android:layout\_width="215dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:ems="1"

android:hint="out of 100"

android:inputType="numberDecimal"

android:paddingStart="10dp"

android:paddingTop="10dp"

android:paddingBottom="10dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.75"

app:layout\_constraintStart\_toEndOf="@+id/textView3"

app:layout\_constraintTop\_toBottomOf="@+id/textView16"

app:layout\_constraintVertical\_bias="0.026" />

<EditText

android:id="@+id/editTextTextPersonName3"

android:layout\_width="215dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:ems="10"

android:hint="out of 100"

android:inputType="numberDecimal"

android:paddingStart="10dp"

android:paddingTop="10dp"

android:paddingBottom="10dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.75"

app:layout\_constraintStart\_toEndOf="@+id/textView3"

app:layout\_constraintTop\_toBottomOf="@+id/editTextTextPersonName2"

app:layout\_constraintVertical\_bias="0.0" />

<EditText

android:id="@+id/editTextTextPersonName4"

android:layout\_width="215dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:ems="10"

android:hint="out of 100"

android:inputType="numberDecimal"

android:paddingStart="10dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.765"

app:layout\_constraintStart\_toEndOf="@+id/textView3"

app:layout\_constraintTop\_toBottomOf="@+id/editTextTextPersonName3"

app:layout\_constraintVertical\_bias="0.0" />

<EditText

android:id="@+id/editTextTextPersonName5"

android:layout\_width="215dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:ems="10"

android:hint="out of 100"

android:inputType="numberDecimal"

android:paddingStart="10dp"

android:paddingTop="10dp"

android:paddingBottom="10dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.765"

app:layout\_constraintStart\_toEndOf="@+id/textView3"

app:layout\_constraintTop\_toBottomOf="@+id/editTextTextPersonName4"

app:layout\_constraintVertical\_bias="0.002" />

<EditText

android:id="@+id/editTextTextPersonName6"

android:layout\_width="215dp"

android:layout\_height="39dp"

android:background="#FFFFFF"

android:ems="10"

android:hint="out of 100"

android:inputType="numberDecimal"

android:paddingStart="10dp"

android:paddingTop="10dp"

android:paddingBottom="10dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.75"

app:layout\_constraintStart\_toEndOf="@+id/textView3"

app:layout\_constraintTop\_toBottomOf="@+id/editTextTextPersonName5"

app:layout\_constraintVertical\_bias="0.0" />

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:onClick="btn1"

android:text="SUBMIT"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/checkBox2"

app:layout\_constraintVertical\_bias="0.0" />

<RadioGroup

android:id="@+id/radioGroup"

android:layout\_width="197dp"

android:layout\_height="71dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.654"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView9"

app:layout\_constraintVertical\_bias="0.0">

<RadioButton

android:id="@+id/radioButton3"

android:layout\_width="140dp"

android:layout\_height="35dp"

android:background="#FFFFFF"

android:text="class 10" />

<RadioButton

android:id="@+id/radioButton4"

android:layout\_width="140dp"

android:layout\_height="35dp"

android:background="@color/white"

android:text="class 12" />

</RadioGroup>

<TextView

android:id="@+id/textView"

android:layout\_width="149dp"

android:layout\_height="27dp"

android:textAlignment="center"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView12" />

<CheckBox

android:id="@+id/checkBox"

android:layout\_width="115dp"

android:layout\_height="59dp"

android:text="total"

app:layout\_constraintBottom\_toTopOf="@+id/textView10"

app:layout\_constraintEnd\_toStartOf="@+id/checkBox2"

app:layout\_constraintHorizontal\_bias="1.0"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView17"

app:layout\_constraintVertical\_bias="0.0" />

<CheckBox

android:id="@+id/checkBox2"

android:layout\_width="115dp"

android:layout\_height="59dp"

android:layout\_marginEnd="12dp"

android:text="percentage "

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toStartOf="@+id/checkBox3"

app:layout\_constraintTop\_toBottomOf="@+id/textView17"

app:layout\_constraintVertical\_bias="0.0" />

<CheckBox

android:id="@+id/checkBox3"

android:layout\_width="115dp"

android:layout\_height="59dp"

android:layout\_marginEnd="4dp"

android:text="result"

app:layout\_constraintBottom\_toTopOf="@+id/textView13"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView17"

app:layout\_constraintVertical\_bias="0.0" />

</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA CODE:**

package com.example.reportcard;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;

import android.os.Bundle;

import android.view.View;

import android.widget.CheckBox;

import android.widget.EditText;

import android.widget.RadioButton;

import android.widget.TextView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

}

public void btn1(View s1)

{

TextView t1 = findViewById(R.id.textView13);

TextView t2 = findViewById(R.id.textView14);

TextView t3= findViewById(R.id.textView15);

TextView t4= findViewById(R.id.textView);

EditText e1 = findViewById(R.id.editTextTextPersonName2);

EditText e2 = findViewById(R.id.editTextTextPersonName3);

EditText e3 = findViewById(R.id.editTextTextPersonName4);

EditText e4 = findViewById(R.id.editTextTextPersonName5);

EditText e5 = findViewById(R.id.editTextTextPersonName6);

String s = e1.getText().toString();

String s5 = e2.getText().toString();

String s2 = e3.getText().toString();

String s3 = e4.getText().toString();

String s4 = e5.getText().toString();

int sub1 = Integer.parseInt(s);

int sub2 = Integer.parseInt(s5);

int sub3 = Integer.parseInt(s2);

int sub4 = Integer.parseInt(s3);

int sub5 = Integer.parseInt(s4);

double total = sub1+sub2+sub3+sub4+sub5;

double percentage = (sub1+sub2+sub3+sub4+sub5)\*100/500;

RadioButton r1 =(RadioButton) findViewById(R.id.radioButton3);

RadioButton r2 =(RadioButton) findViewById(R.id.radioButton4);

if (r1.isChecked())

{

t4.setText("class 10");

}

else if(r2.isChecked())

{

t4.setText("class 12");

}

CheckBox c = (CheckBox) findViewById(R.id.checkBox);

CheckBox c2 = (CheckBox) findViewById(R.id.checkBox2);

CheckBox c3 = (CheckBox) findViewById(R.id.checkBox3);

if(c.isChecked()) {

t1.setText("" + total);

}

if(c2.isChecked()) {

t2.setText("" +percentage );

}

if(c3.isChecked()) {

if (percentage>60)

{

t3.setText("first division");

}

else if (percentage>45)

{

t3.setText("second division");

}

else if (percentage>33)

{

t3.setText("third division");

}

else

{

t3.setText("Fail");

}

if (sub1<33)

{

t3.setText("fail");

}

if (sub2<33)

{

t3.setText("fail");

}

if (sub3<33)

{

t3.setText("fail");

}

if (sub4<33)

{

t3.setText("fail");

}

if (sub5<33)

{

t3.setText("fail");

}

}

if(sub1>100)

{

Context c1 = getApplicationContext();

CharSequence txt = "invalid marks";

int dur = Toast.LENGTH\_LONG;

Toast toast = Toast.makeText(c1, txt, dur);

toast.show();

t3.setText("invalid marks");

t2.setText("invalid marks");

t1.setText("invalid marks");

}

if(sub2>100)

{

Context c1 = getApplicationContext();

CharSequence txt = "invalid marks";

int dur = Toast.LENGTH\_LONG;

Toast toast = Toast.makeText(c1, txt, dur);

toast.show();

t3.setText("invalid marks");

t2.setText("invalid marks");

t1.setText("invalid marks");

}

if(sub3>100)

{

Context c1 = getApplicationContext();

CharSequence txt = "invalid marks";

int dur = Toast.LENGTH\_LONG;

Toast toast = Toast.makeText(c1, txt, dur);

toast.show();

t3.setText("invalid marks");

t2.setText("invalid marks");

t1.setText("invalid marks");

}

if(sub4>100)

{

Context c1 = getApplicationContext();

CharSequence txt = "invalid marks";

int dur = Toast.LENGTH\_LONG;

Toast toast = Toast.makeText(c1, txt, dur);

toast.show();

t3.setText("invalid marks");

t2.setText("invalid marks");

t1.setText("invalid marks");

}

if(sub5>100)

{

Context c1 = getApplicationContext();

CharSequence txt = "invalid marks";

int dur = Toast.LENGTH\_LONG;

Toast toast = Toast.makeText(c1, txt, dur);

toast.show();

t3.setText("invalid marks");

t2.setText("invalid marks");

t1.setText("invalid marks");

}

Context context = getApplicationContext();

CharSequence text = t3.getText().toString();

int duration = Toast.LENGTH\_LONG;

Toast toast = Toast.makeText(context, text, duration);

toast.show();

}

}

**OUTPUT:-**

