PRACTICAL NO: 04

AIM: Create an Android app with a RadioGroup for lesson ratings, checkboxes for feedback, and a Submit button to display the selected rating and checkbox states in a TextView, with validation for rating selection.

```
<LinearLayout
   xmlns:android="http://schemas.android.com/apk/res/android"
   android:orientation="vertical"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:paddingTop="50dp">
   <TextView
       android:id="@+id/textView"
       android:layout_width="match_parent"
       android:layout_height="wrap_content"
       android:text="RadioCheckBox"
       android:textSize="30dp"
       android:background="#CABBE6"
       android:gravity="center"/>
   <TextView
       android:id="@+id/textView2"
       android:layout_width="match_parent"
       android:layout_height="wrap_content" android:text="Rate This Lesson"
       android:gravity="center"
       android:textSize="20dp"
       android:paddingTop="20dp"/>
   <RadioGroup
       android:id="@+id/radioGroup"
       android:layout_width="match_parent"
       android:layout_height="wrap_content" android:orientation="horizontal"
       android:gravity="center"
       android:paddingTop="20dp">
       <RadioButton
           android:id="@+id/r1"
           android:layout_width="wrap_content"
           android:layout_height="wrap_content"
           android:text="EXCELLENT"/>
       <RadioButton

           android:id="@+id/r2"
           android:layout_width="wrap_content"
           android:layout_height="wrap_content"
           android:text="GOOD"/>
       <RadioButton
           android:id="@+id/r3"
           android:layout_width="wrap_content"
           android:layout_height="wrap_content" android:text="OKAY"/>
       <RadioButton
           android:id="@+id/r4"
           android:layout_width="wrap_content"
```

```
            android:layout_height="wrap_content" android:text="POOR"/>
    </RadioGroup>
    <TextView
        android:id="@+id/textView3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Give your Suggestions Here"
        android:textSize="25dp"
        android:gravity="center"
        android:paddingTop="20dp"
        android:paddingBottom="20dp"/>
    <CheckBox
        android:id="@+id/checkBox2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="I Really Enjoyed This Lesson"
        android:layout_marginLeft="40dp"
        android:textSize="19dp"/>
    <CheckBox
        android:id="@+id/checkBox3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" android:layout_marginLeft="40dp"
        android:textSize="19dp"
        android:text="I will Prefer This Lesson To Else Also" />
    <CheckBox
        android:id="@+id/checkBox4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:textSize="19dp"
        android:text="I would Like To Here More From You" />
    <CheckBox
        android:id="@+id/checkBox5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" android:layout_marginLeft="40dp"
        android:textSize="19dp"
        android:text="I am Satisfied With The Lessons" />
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" android:text="Submit"
        android:layout_gravity="center"/>
    <TextView
        android:id="@+id/textView4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" android:textSize="20dp"
        android:paddingTop="30dp" />
</LinearLayout>
```

```
package com.example.practice;

import android.os.Bundle;
```

```
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

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

       RadioGroup rg = findViewById(R.id.radioGroup);
       CheckBox c1 = findViewById(R.id.checkBox2);
       CheckBox c2 = findViewById(R.id.checkBox3);
       CheckBox c3 = findViewById(R.id.checkBox4);
       CheckBox c4 = findViewById(R.id.checkBox5);
       Button btn = findViewById(R.id.button);
       TextView t = findViewById(R.id.textView4);

       btn.setOnClickListener(new View.OnClickListener() {
           @Override
           public void onClick(View view) {
               int selectedId = rg.getCheckedRadioButtonId();

               if (selectedId == -1) {
                   Toast.makeText(MainActivity.this, "Rate us",
Toast.LENGTH_SHORT).show();
               } else {
                   RadioButton selectedRadioButton =
findViewById(selectedId);
                   String rbText = selectedRadioButton.getText().toString() +
"\n";

                   StringBuilder cText = new StringBuilder();
                   if (c1.isChecked()) {
                       cText.append(c1.getText().toString()).append("\n");
                   }
                   if (c2.isChecked()) {
                       cText.append(c2.getText().toString()).append("\n");
                   }
                   if (c3.isChecked()) {
                       cText.append(c3.getText().toString()).append("\n");
                   }
                   if (c4.isChecked()) {
                       cText.append(c4.getText().toString()).append("\n");
                   }

                   t.setText("Rating: " + rbText + "Suggestion: " + cText);
```

```
                    }
                }
            });
    }
}
```

Practical No: 5A Aim: Write an android program to navigate from one screen to another .

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
   android:orientation="vertical"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:gravity="center">
   <TextView
       android:id="@+id/txtMsg1"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:text="Welcome to first screen"
       android:textSize="24sp"
       android:textColor="#F90234"/>
   <Button
       android:id="@+id/btnNext"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:text="Next"
       android:layout_marginTop="8dp"/>
</LinearLayout>
```

Activity_navigate.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
   android:orientation="vertical"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:gravity="center">
   <TextView
       android:id="@+id/txtMsg1"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:text="Welcome to second screen"
       android:textSize="24sp"
       android:textColor="#F90234"/>
   <Button
       android:id="@+id/btnBack"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:text="GO BACK"
       android:layout_marginTop="8dp"/>
</LinearLayout>
```

ActivityMain.java

```
package com.example.practice;
import android.content.Intent;
```

```
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

import com.example.practice.NavigateActivity;
import com.example.practice.R;

public class MainActivity extends AppCompatActivity
{
   @Override
   protected void onCreate(Bundle s) {
       super.onCreate(s);
       EdgeToEdge.enable(this);
       setContentView(R.layout.activity_main);
       Button btn= findViewById(R.id.btnNext);
       btn.setOnClickListener(new View.OnClickListener() {
           @Override
           public void onClick(View view) {
               Intent it = new Intent(MainActivity.this,
NavigateActivity.class);
               startActivity(it);
           }
       });
   }
   }
```

NavigateActivity.java

```
package com.example.practice;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;

public class NavigateActivity extends AppCompatActivity {
   Button btn;  // Declare button here

   @Override
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       EdgeToEdge.enable(this);
       setContentView(R.layout.activity_navigate);

       btn = findViewById(R.id.btnBack);  // Initialize button after
setContentView()
```

```
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent it = new Intent(NavigateActivity.this,
MainActivity.class);
                startActivity(it);
            }
        });
    }
}
```

Practical : 5B

Aim: Write an Android program to demonstrate the Options Menu.

res/menu/options.xml

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:android="http://schemas.android.com/apk/res/android">
   <item
       android:id="@+id/search"
       android:title="Search" />
   <item android:id="@+id/upload"
       android:title="Upload" />
   <item android:id="@+id/copy"
       android:title="Copy" />
   <item android:id="@+id/print"
       android:title="Print" />
   <item android:id="@+id/share"
       android:title="Share" />
   <item
       android:id="@+id/bookmark"
       android:title="BookMark" />
</menu>
```

activity_main.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:id="@+id/textView"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:text="This is a Prac 5 B"
       android:textSize="18sp" />
</LinearLayout>
```

MainActivity.java

```
package com.example.practice;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
   @Override
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_main);
   }
   @Override
   public boolean onCreateOptionsMenu(Menu menu) {
       getMenuInflater().inflate(R.menu.options, menu);
```

```
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        int num = item.getItemId();
        Toast.makeText(this, "Selected Item: " + item.getTitle(),
Toast.LENGTH_LONG).show();

        if (num == R.id.search || num == R.id.upload || num == R.id.copy ||
                num == R.id.print || num == R.id.share || num ==
R.id.bookmark) {
            return true;
        } else {
            return super.onOptionsItemSelected(item);
        }
    }

}
```

```
PRACTICAL NO: 09
```

AIM: Create an Android app to create a new 'emp' table in SQLite with fields: name, age, and designation. Insert records into it and display them on the screen.

androidmanifest.xml

```
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
<uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE" />
```

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical"
android:gravity="center"
android:layout_width="match_parent"
android:layout_height="match_parent">

<EditText
android:id="@+id/edtName"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginHorizontal="34dp"
android:inputType="text"
android:hint="Enter Name" />

<EditText
android:id="@+id/edtAge"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginHorizontal="34dp"
android:inputType="number"
android:hint="Enter Age" />

<EditText
android:id="@+id/edtDesignation"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginHorizontal="34dp"
android:inputType="text"
android:hint="Enter Designation" />

<Button
android:id="@+id/btnAdd"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Add" />

<Button
android:id="@+id/btnShow"
```

```
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:text="Show" />

       <TextView
       android:id="@+id/result"
       android:layout_width="match_parent"
       android:layout_height="wrap_content" />

       <TableLayout
       android:id="@+id/tableLayout"
       android:layout_width="match_parent"
       android:layout_height="wrap_content"
       android:padding="16dp"
       android:orientation="vertical">

       <TableRow>
       <TextView android:id="@+id/headName"
android:layout_width="wrap_content" android:layout_height="wrap_content"
android:paddingEnd="56dp" />
       <TextView android:id="@+id/headAge"
android:layout_width="wrap_content" android:layout_height="wrap_content"
android:paddingEnd="36dp" />
       <TextView android:id="@+id/headDesignation"
android:layout_width="wrap_content" android:layout_height="wrap_content" />
       </TableRow>
       </TableLayout>
       </LinearLayout>
       ```

       ## MainActivity.java

       ```java
       package com.example.practical9;

import android.content.ContentValues;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TableLayout;
import android.widget.TableRow;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
   EditText nameEdit, ageEdit, designationEdit;
   TextView resultView, headName, headAge, headDesignation;
```

```
    Button addBtn, showBtn;
    TableLayout tableLayout;
    DBHelper help = new DBHelper(this);

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

        nameEdit = findViewById(R.id.edtName);
        ageEdit = findViewById(R.id.edtAge);
        designationEdit = findViewById(R.id.edtDesignation);
        addBtn = findViewById(R.id.btnAdd);
        showBtn = findViewById(R.id.btnShow);
        resultView = findViewById(R.id.result);
        headName = findViewById(R.id.headName);
        headAge = findViewById(R.id.headAge);
        headDesignation = findViewById(R.id.headDesignation);
        tableLayout = findViewById(R.id.tableLayout);

        addBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String name = nameEdit.getText().toString().trim();
                String ageS = ageEdit.getText().toString().trim();
                String designation =
designationEdit.getText().toString().trim();

                if (!name.isEmpty() && !ageS.isEmpty()) {
                    try {
                        int age = Integer.parseInt(ageS);
                        SQLiteDatabase db = help.getWritableDatabase();
                        ContentValues cv = new ContentValues();
                        cv.put("name", name);
                        cv.put("age", age);
                        cv.put("designation", designation);
                        long rowId = db.insert("emp", null, cv);

                        if (rowId != -1) {
                            nameEdit.setText("");
                            ageEdit.setText("");
                            designationEdit.setText("");
                            Toast.makeText(MainActivity.this, "Record Added!",
Toast.LENGTH_SHORT).show();
                        } else {
                            Toast.makeText(MainActivity.this, "Error Adding
Record", Toast.LENGTH_SHORT).show();
                        }
                        db.close();
                    } catch (NumberFormatException e) {
                        Toast.makeText(MainActivity.this, "Invalid Age",
Toast.LENGTH_SHORT).show();
                    }
```

```
                } else {
                    Toast.makeText(MainActivity.this, "Please fill all
fields", Toast.LENGTH_SHORT).show();
                }
            }
        });

        showBtn.setOnClickListener(v -> {
            tableLayout.removeViews(1, Math.max(0, tableLayout.getChildCount()
- 1));
            SQLiteDatabase db = help.getReadableDatabase();
            Cursor cursor = db.rawQuery("SELECT * FROM emp", null);
            if (cursor.getCount() > 0) {
                while (cursor.moveToNext()) {
                    String name = cursor.getString(1);
                    int age = cursor.getInt(2);
                    String designation = cursor.getString(3);

                    TableRow tableRow = new TableRow(this);
                    TextView nameTextView = new TextView(this);
                    nameTextView.setText(name);
                    TextView ageTextView = new TextView(this);
                    ageTextView.setText(String.valueOf(age));
                    TextView designationTextView = new TextView(this);
                    designationTextView.setText(designation);

                    tableRow.addView(nameTextView);
                    tableRow.addView(ageTextView);
                    tableRow.addView(designationTextView);
                    tableLayout.addView(tableRow);
                }
            } else {
                resultView.setText("No data found.");
            }
            cursor.close();
            db.close();
        });
    }
}
```

        ## DBHelper.java

```
package com.example.practical9;

import android.content.Context;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

public class DBHelper extends SQLiteOpenHelper {
    static String dbname = "employee";
```

```
    static int version = 4;

    public DBHelper(Context context) {
        super(context, dbname, null, version);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        String query = "CREATE TABLE emp(id INTEGER PRIMARY KEY AUTOINCREMENT,
name TEXT, age INTEGER, designation TEXT)";
        db.execSQL(query);
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        db.execSQL("DROP TABLE IF EXISTS emp");
        onCreate(db);
    }
}
```