

Android Programming Slip

- Slip 1

Q1. Create a Simple Application which shows the Life Cycle of Activity

Solution:

```
package com.example.toast_lifecycle;
import ...
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    @Override
    protected void onStart() {
        super.onStart();
        Toast.makeText(this, "onCreate() is called",
Toast.LENGTH_SHORT).show();
    }
    @Override
    protected void onResume() {
        super.onResume();
        Toast.makeText(this, "onResume() is
called", Toast.LENGTH_SHORT).show();
    }
    protected void onPause()
    {
        super.onPause();
        Toast.makeText(this, "onPause() is called",
Toast.LENGTH_SHORT).show();
    }
    @Override
    protected void onStop() {
        super.onStop();
        Toast.makeText(this, "onStop() is called()",
Toast.LENGTH_SHORT).show();
    }
    @Override
    protected void onDestroy() {
        super.onDestroy();
        Toast.makeText(this, "onDestroy() is called",
Toast.LENGTH_SHORT).show();
    }
}
```

Q2. Create an Android Application that demonstrate DatePicker and DatePickerDialog.

Solution:

- Activity_main.xml

```
• <?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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:orientation="vertical"
        tools:context=".MainActivity">

        <TextView
            android:id="@+id/text"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="20dp"
            android:text="Select Your DOB"
            android:gravity="center"
            android:textSize="25dp"
            android:textStyle="bold"/>

        <EditText
            android:id="@+id/in_date"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="40dp"
            android:textStyle="bold"
            android:textSize="20dp"
            android:layout_alignParentBottom="true"
            android:layout_alignParentLeft="true"
            android:layout_alignParentStart="true" />

        <Button
            android:id="@+id/btn_date"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="10dp"
            android:text="SELECT DATE"
            android:layout_alignParentBottom="@id/in_date"
            android:layout_toRightOf="@id/in_date"
            android:layout_toLeftOf="@id/in_date"/>
    </LinearLayout>

```

• MainActivity.java

```

• package com.example.datepicker;
  import...

• public class MainActivity extends AppCompatActivity {
    EditText txtDate;
    Button btnDate;
    int mDay,mMonth,mYear;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        txtDate=(EditText) findViewById(R.id.in_date);
        btnDate=(Button) findViewById(R.id.btn_date);

        btnDate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                final Calendar c=Calendar.getInstance();
                mDay=c.get(Calendar.DAY_OF_MONTH);
                mMonth=c.get(Calendar.MONTH);
                mYear=c.get(Calendar.YEAR);
            }
        });
    }
}

```

```

        DatePickerDialog datePickerDialog=new
DatePickerDialog(MainActivity.this,
        new DatePickerDialog.OnDateSetListener() {
            @Override
            public void onDateSet(DatePicker view, int year,
int month, int dayOfMonth) {
                txtDate.setText(dayOfMonth+"-"+month+"-"+year);
            }
        },mDay,mMonth,mYear);
        datePickerDialog.show();
    }
    });
}
}

```

• Slip 3

Q1. Create an Android Application that will change color of the College Name on click of Push Button and change the font size, font style of text view using xml.

Solution:

• **Activity_main.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/collegeNameTextView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="KTHM COLLEGE"
        android:gravity="center"
        android:textSize="24dp"
        android:textStyle="normal"
        android:layout_marginTop="150dp"/>

    <Button
        android:id="@+id/changeColorButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Color"
        android:layout_gravity="center"
        android:layout_marginTop="50dp"/>

</LinearLayout>

```

• MainActivity.java

```
package com.example.slip_3_q1;
import ...
public class MainActivity extends AppCompatActivity {

    private TextView collegeNameTextView;
    private Button changeColorButton;
    private boolean isColorChanged = false;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        collegeNameTextView = findViewById(R.id.collegeNameTextView);
        changeColorButton = findViewById(R.id.changeColorButton);

        changeColorButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {

                collegeNameTextView.setTextColor(Color.RED);
                collegeNameTextView.setTextSize(30);
                collegeNameTextView.setTypeface(null, Typeface.BOLD_ITALIC);

            }
        });
    }
}
```

Q2. . Create an Android Application to find the factorial of a number and Display the Result on Alert Box.

Solution:

• activity_main.xml

```
• <?xml version="1.0" encoding="utf-8"?>
  <LinearLayout
    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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">
    <TextView
      android:id="@+id/textView"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_marginTop="10dp"
      android:text="Find Factorial"
      android:textSize="20dp" />
    <EditText
      android:id="@+id/edittxtNumber"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_marginTop="50dp"
```

```

        android:ems="10"
        android:hint="Enter the Number"
        android:textSize="20dp"
        android:inputType="number"/>
    <Button
        android:id="@+id/btnCalculate"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:text="Calculate"
        android:textSize="20dp"/>
</LinearLayout>

```

- **MainActivity.java**

```

package com.example.factorial_alert_boc;
import...
public class MainActivity extends AppCompatActivity {

    private Button btn;
    private EditText editText;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        editText = (EditText) findViewById(R.id.edittxtNumber);
        btn = (Button) findViewById(R.id.btnCalculate);

        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                int no = Integer.parseInt(editText.getText().toString());
                int output = factorial(no);
                AlertDialog.Builder builder = new
AlertDialog.Builder(MainActivity.this);
                builder.setMessage("Factorial of "+no+"is:"+output);
                builder.setTitle("Factorial");
                builder.setCancelable(false);
                builder.setPositiveButton("Yes",
(DialogInterface.OnClickListener) (dialog , which)-> {
                    dialog.cancel();
                    editText.getText().clear();
                });
                builder.setNegativeButton("No",
(DialogInterface.OnClickListener) (dialog, which) -> {
                    dialog.cancel();
                    editText.getText().clear();
                });
                AlertDialog alertDialog= builder.create();
                alertDialog.show();
            }
        });
    }

    int factorial(int n) {
        if (n == 0)
            return 1;
        else
            return (n * factorial(n - 1));
    }
}

```

```
}  
}
```

OR

Q2. Create an Android App, it reads the Students Details (Name, Surname, Class, Gender, Hobbies, Marks) and display the all information in another activity in table format on click of Submit button.

Solution: Same as Slip 16 Q1

• **Slip 5**

Q1. Create an Android Application to accept two numbers and find power and Average. Display the result on the next activity on Button click

Solution:

• **Activity main.xml**

```
<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout 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:orientation="vertical"  
    android:padding="16dp"  
    tools:context=".MainActivity">  
  
    <TextView  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
        android:layout_marginTop="50dp"  
        android:text="Find Power and Average of 2 Numbers"  
        android:background="#0ef"  
        android:textSize="20sp"  
        android:gravity="center"/>  
        <TextView  
            android:layout_width="match_parent"  
            android:layout_height="wrap_content"  
            android:layout_marginTop="40dp"  
            android:textSize="20sp"  
            android:text="Base no"/>  
        <EditText  
            android:id="@+id/editTextBaseNo"  
            android:layout_width="match_parent"  
            android:layout_height="wrap_content"  
            android:ems="10"  
            android:layout_marginTop="10dp"  
            android:hint="Base No"  
            android:inputType="number"/>  
    <TextView
```

```

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:textSize="20sp"
        android:text="Exponent no"/>
    <EditText
        android:id="@+id/editTextExponentNo"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:layout_marginTop="10dp"
        android:hint="Exponent No"
        android:inputType="number"/>
    <Button
        android:id="@+id/btn_Calculate"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Calculate"
        android:layout_gravity="center"
        android:layout_marginTop="20dp"/>
</LinearLayout>

```

• MainActivity.java

```

package com.example.power_avergae;
import ...
public class MainActivity extends AppCompatActivity {
    private EditText BaseNo, ExponentNo;
    private Button btnCal;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        BaseNo=(EditText) findViewById(R.id.editTextBaseNo);
        ExponentNo=(EditText) findViewById(R.id.editTextExponentNo);
        btnCal=(Button) findViewById(R.id.btn_Calculate);
        btnCal.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int base=Integer.parseInt(BaseNo.getText().toString());
                int exponent=Integer.parseInt(ExponentNo.getText().toString());
                int result=1;
                int power=Integer.parseInt(ExponentNo.getText().toString());
                while(exponent > 0){
                    result *=base;
                    exponent --;
                }
                double average = ( base + power ) / 2;
                Toast.makeText(MainActivity.this, ""+result,
                Toast.LENGTH_SHORT).show();
                Intent intent=new Intent(MainActivity.this,MainActivity2.class);
                intent.putExtra("n1",String.valueOf(base));
                intent.putExtra("n2",String.valueOf(power));
                intent.putExtra("power",String.valueOf(result));
                intent.putExtra("avg",String.valueOf(average));
                startActivity(intent);
            }
        });
    }
}

```

```
}  
}
```

• Activity_main2.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout  
    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:orientation="vertical"  
    android:padding="20dp"  
    tools:context=".MainActivity2">  
  
    <TextView  
        android:id="@+id/textViewResult"  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
        android:textSize="20sp"  
        android:layout_marginTop="60dp"/>  
  
</LinearLayout>
```

• MainActivity2.java

```
package com.example.power_avergae;  
  
import...  
public class MainActivity2 extends AppCompatActivity {  
  
    private TextView textViewResult;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main2);  
  
        textViewResult=(TextView) findViewById(R.id.textViewResult);  
  
        String base=getIntent().getStringExtra("n1");  
        String power=getIntent().getStringExtra("n2");  
        String result=getIntent().getStringExtra("power");  
        String average=getIntent().getStringExtra("avg");  
  
        String ans=base + "raised to the power of" + power + "is: " +result  
+ "\n and average is: "+average;  
        textViewResult.setText(ans);  
    }  
}
```

Q2. Create an Android application that creates a custom Alert Dialog containing Friends Name and onClick of Friend Name Button greet accordingly.

Solution:

• Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:padding="16dp"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Alert with Friend List"
        android:layout_marginTop="50dp"
        android:layout_gravity="center"
        android:textSize="20sp"/>

    <Button
        android:id="@+id/button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="Show alert" />

</LinearLayout>
```

• MainActivity.java

```
package com.example.slip_5_q2;
import...
public class MainActivity extends AppCompatActivity {
    String[] names = {"Tom", "Bob", "Alice", "Trudy", "Fread", "Andy"};
    ArrayAdapter<String> adapter;
    ListView listView;
    Button btn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn=(Button) findViewById(R.id.button);
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {

                AlertDialog.Builder alertDialog = new
AlertDialog.Builder(MainActivity.this);
                View rowList = getLayoutInflater().inflate(R.layout.activity_main2,null);
                listView = rowList.findViewById(R.id.list_view_1);
                adapter = new ArrayAdapter<String>(MainActivity.this,
android.R.layout.simple_list_item_1, names);
                listView.setAdapter(adapter);
                listView.setOnItemClickListener((parent, view, position, id) -> {
                    String selectedItem = parent.getItemAtPosition(position).toString();
                    Random rand = new Random();
                    int randomNum = rand.nextInt(2) + 1;
                    String[] mr={"Hello","Hi","Good Morning","Whats up"};
```

```

        Toast.makeText(MainActivity.this, mr[randomNum]+"
"+selectedItem, Toast.LENGTH_SHORT).show();
    });
    adapter.notifyDataSetChanged();
    alertDialog.setView(rowList);
    AlertDialog dialog = alertDialog.create();
    dialog.show();
}
    });
}
}

```

• Activity_main2.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    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"
    tools:context=".MainActivity2">
    <ListView
        android:id="@+id/list_view_1"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>
</LinearLayout>

```

• Slip 6

Q1. Create a Simple Application Which Send —Hello! message from one activity to another with help of Button (Use Intent).

Solution:

• Activity_main.xml

```

• <?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="#e8e8"
      tools:context=".MainActivity">

      <EditText
          android:id="@+id/text_msg"
          android:layout_width="315dp"
          android:layout_height="53dp"
          android:layout_marginStart="58dp"
          android:layout_marginTop="286dp"
          android:layout_marginEnd="39dp"
          android:layout_marginBottom="392dp"

```

```

        android:ems="10"
        android:inputType="text"
        android:hint="Enter Message"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/btnClick"
        android:layout_width="126dp"
        android:layout_height="55dp"
        android:layout_marginStart="156dp"
        android:layout_marginTop="372dp"
        android:layout_marginEnd="129dp"
        android:layout_marginBottom="304dp"
        android:text="Submit "
        android:background="@color/black"
        android:textSize="24sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="1.0" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

• MainActivity.java

```

• package com.example.hello_msg_q2;
  import ...
  public class MainActivity extends AppCompatActivity {
      private Button button;
      private EditText editTextmsg;
      @Override
      protected void onCreate(Bundle savedInstanceState) {
          super.onCreate(savedInstanceState);
          setContentView(R.layout.activity_main);
          editTextmsg=(EditText) findViewById(R.id.text_msg);
          button=(Button) findViewById(R.id.btnClick);
          button.setOnClickListener(new View.OnClickListener() {
              @Override
              public void onClick(View view) {
                  String text=editTextmsg.getText().toString();
                  Intent intent=new Intent(MainActivity.this,MainActivity2.class);
                  intent.putExtra("msg",text);
                  startActivity(intent);
              }
          });
      }
  }
•

```

• Activity_main2.xml

```

• <?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="#e8e8"
        tools:context=".MainActivity2">
        <TextView
            android:id="@+id/text_print"
            android:layout_width="193dp"
            android:layout_height="47dp"
            android:layout_marginStart="147dp"
            android:layout_marginTop="347dp"
            android:layout_marginEnd="147dp"
            android:layout_marginBottom="348dp"
            android:text=" "
            android:textColor="@color/black"
            android:fontFamily="cursive"
            android:textSize="50dp"
            android:textStyle="bold"
            android:textAlignment="center"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
    </androidx.constraintlayout.widget.ConstraintLayout>

```

- **MainActivity2.java**

```

• package com.example.hello_msg_q2;
  import ...
  public class MainActivity2 extends AppCompatActivity {
      private TextView textViewmsg;
      @Override
      protected void onCreate(Bundle savedInstanceState) {
          super.onCreate(savedInstanceState);
          setContentView(R.layout.activity_main2);
          textViewmsg=(TextView) findViewById(R.id.text_print);
          String text=getIntent().getStringExtra("msg");
          textViewmsg.setText(" "+text);
      }
  }

```

Q2. Create an Android Application that Demonstrates ListView and Onclick of List Displaythe Toast.

Solution:

- **Activity_main.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:padding="15dp"
    tools:context=".MainActivity">

    <ListView

```

```

        android:id="@+id/listView"
        android:layout_width="match_parent"
        android:layout_height="match_parent" />
</LinearLayout>

```

• MainActivity.java

```

package com.example.slip_6_q2;
import...

public class MainActivity extends AppCompatActivity {
    private ListView listView;
    private String[] data = {"Orange", "Papaya", "Apple", "Mango", "Guava" };
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        listView = findViewById(R.id.listView);

        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
        android.R.layout.simple_list_item_1, android.R.id.text1, data);
        listView.setAdapter(adapter);

        listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view,
            int position, long id) {
                String selectedItem = data[position];
                Toast.makeText(MainActivity.this, selectedItem, Toast.LENGTH_SHORT).show();
            }
        });
    }
}

```

• Slip 7

Q1. Create an Android Application that Demonstrate Radio Button.

Solution:

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    tools:context=".MainActivity">
    <RadioGroup
        android:layout_width="match_parent"
        android:layout_height="match_parent" >

        <RadioButton
            android:id="@+id/radioButton1"

```

```

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="Radio Button 1" />
    <RadioButton
        android:id="@+id/radioButton2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="Radio Button 2" />
    <RadioButton
        android:id="@+id/radioButton3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="Radio Button 3" />
    <RadioButton
        android:id="@+id/radioButton4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="Radio Button 4" />
    <Button
        android:id="@+id/button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="Submit" />
</RadioGroup>
</LinearLayout>

```

Q2. Create an Android application to demonstrate phone call using Implicit Intent.

- **Activity_main.xml**

```

• <?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Enter the number to call"
        android:textSize="20dp"/>
    <EditText
        android:id="@+id/TextNumber"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:ems="10"
        android:hint="Enter the phone number to call"
        android:inputType="number"/>
    <Button

```

```

        android:id="@+id/btnnCall"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="Call"/>
    </LinearLayout>

```

• MainActivity.java

```

package com.example.phone_call;
import...

public class MainActivity extends AppCompatActivity {
    private EditText editText;
    private Button btnn;

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

        editText=(EditText) findViewById(R.id.TextNumber);
        btnn=(Button) findViewById(R.id.btnnCall);

        btnn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String phone=editText.getText().toString();
                Intent intent=new Intent(Intent.ACTION_DIAL,
                Uri.parse("tel:+91"+phone));
                startActivity(intent);
            }
        });
    }
}

```

• Slip 8

Q1. Create an Android App with Login Screen. On successful login, gives message go to next Activity (Without Using Database& use Table Layout)

• Activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="40dp"
    tools:context=".MainActivity">

    <TableLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="16dp">

        <TableRow>

```

```

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:paddingRight="10dp"
            android:text="Username" />

        <EditText
            android:id="@+id/usernameEditText"
            android:layout_width="304dp"
            android:layout_height="wrap_content"
            android:inputType="text" />
    </TableRow>

    <TableRow>

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:paddingRight="10dp"
            android:text="Password" />

        <EditText
            android:id="@+id/passwordEditText"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:inputType="textPassword" />
    </TableRow>

    <Button
        android:id="@+id/loginButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:layout_gravity="center"
        android:text="Login" />

    </TableLayout>
</RelativeLayout>

```

• MainActivity.java

```

package com.example.slip_8_q1;
import ...
public class MainActivity extends AppCompatActivity {

    private EditText usernameEditText,passwordEditText;
    private Button loginButton;

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

        usernameEditText = (EditText) findViewById(R.id.usernameEditText);
        passwordEditText = (EditText) findViewById(R.id.passwordEditText);
        loginButton = (Button) findViewById(R.id.loginButton);

        loginButton.setOnClickListener(new View.OnClickListener() {

```



```

        @Override
        public void onClick(View v) {
            String username = usernameEditText.getText().toString();
            String password = passwordEditText.getText().toString();
            if (username.equals("admin") &&
password.equals("password")) {
                Toast.makeText(MainActivity.this, "Login Successful",
Toast.LENGTH_SHORT).show();
                Intent intent=new
Intent(MainActivity.this,MainActivity2.class);
                intent.putExtra("email",username);
                startActivity(intent);
            } else {
                Toast.makeText(MainActivity.this, "invalid Input",
Toast.LENGTH_SHORT).show();
            }
        }
    });
}
}

```

• Activity_main2.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:padding="15dp"
    android:orientation="vertical"
    tools:context=".MainActivity2">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="25dp" />

    <Button
        android:id="@+id/btnn_Logout"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="Logout" />

</LinearLayout>

```

• MainActivity2.java

```

package com.example.slip_8_q1;
import ...
public class MainActivity2 extends AppCompatActivity {
    private TextView textView;
    private Button btnLogout;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
    }
}

```

```

        setContentView(R.layout.activity_main2);
        textView=(TextView) findViewById(R.id.textView2);
        btnLogout=(Button) findViewById(R.id.bttn_Logout);

        String email=getIntent().getStringExtra("email");
        textView.setText("Welcome"+email);

        btnLogout.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent=new
Intent(MainActivity2.this,MainActivity.class);
                startActivity(intent);
                Toast.makeText(MainActivity2.this, "Logout Succesfully",
Toast.LENGTH_SHORT).show();
            }
        });
    }
}

```

Q2. . Create application to send email with attachment.

Solution: Same as slip 14 or (Q2)

• Slip 10

Q1. Create an Android Application that Demonstrate Switch and Toggle Button.

• Activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/bulboff"
        android:layout_width="250dp"
        android:layout_height="250dp"
        android:layout_marginTop="20dp"
        android:layout_gravity="center"
        app:srcCompat="@drawable/bulboff" />

    <Switch
        android:id="@+id/bttn_switch"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:minHeight="50dp"

```

```

        android:text="OFF"
        android:textOff="OFF"
        android:textOn="ON"/>

<ToggleButton
    android:id="@+id/btnn_toggleButton"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="20dp"
    android:minHeight="50dp"
    android:text="OFF"
    android:textOff="OFF"
    android:textOn="ON"/>
</LinearLayout>

```

• MainActivity.java

```

package com.example.switch_toggle_button;
import ...
public class MainActivity extends AppCompatActivity {
    ImageView imageView;

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

        imageView=(ImageView) findViewById(R.id.bulboff);
        Switch sw= (Switch) findViewById(R.id.btnn_switch);
        ToggleButton tb= (ToggleButton) findViewById(R.id.btnn_toggleButton);
        sw.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked)
            {
                if (isChecked) {

imageView.setImageDrawable(getResources().getDrawable(R.drawable.bulbon));
                }else{

imageView.setImageDrawable(getResources().getDrawable(R.drawable.bulboff));
                }
            }
        });
        tb.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked)
            {
                if (isChecked) {

imageView.setImageDrawable(getResources().getDrawable(R.drawable.bulbon));
                }else{

imageView.setImageDrawable(getResources().getDrawable(R.drawable.bulboff));
                }
            }
        });
    }
}

```

Q2. Demonstrate Array Adapter using List View to display list of fruits.

• **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
    tools:context=".MainActivity">

    <ListView
        android:id="@+id/ListView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:padding="16dp"/>
</RelativeLayout>
```

• **MainActivity.java**

```
package com.example.slip_10_q2;
import..
public class MainActivity extends AppCompatActivity {

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

        String[] fruits={"Apple","Banana","Orange","Grapes","Watermelon","Mango"};
        ArrayAdapter<String> adapter=new
        ArrayAdapter<>(this,android.R.layout.simple_list_item_1,fruits);
        ListView listView1=findViewById(R.id.ListView);
        listView1.setAdapter(adapter);
    }
}
```

• **Slip 11**

Q1. Create android application to change Font Size, Color and Font Family of String.

Solution:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
```

```

        android:fontFamily="@font/allura"
        android:gravity="center"
        android:text="Jayashri "
        android:background="#4CAF50"
        android:textColor="@color/black"
        android:textStyle="bold"
        android:textSize="60sp" />
</LinearLayout>

```

Q2. Create First Activity to accept information like Student First Name, Middle Name, Last Name, Date of birth, Address, Email ID and display all information on Second Activity when user click on the Submit button.

Solution:

- **Activity_main.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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="#6B4F"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/FirstName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="First Name"
        android:inputType="text" />

    <EditText
        android:id="@+id/MiddleName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:ems="10"
        android:hint="Middle Name"
        android:inputType="text" />

    <EditText
        android:id="@+id/LastName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="Last Name"
        android:inputType="text" />

    <EditText

```

```

        android:id="@+id/DOB"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="Date of Birth"
        android:inputType="date" />

<EditText
    android:id="@+id/Address"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="40dp"
    android:layout_marginRight="40dp"
    android:layout_marginTop="20dp"
    android:hint="Address"
    android:inputType="text" />

<EditText
    android:id="@+id/EmailId"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="40dp"
    android:layout_marginRight="40dp"
    android:layout_marginTop="20dp"
    android:hint="Email Id"
    android:inputType="textEmailAddress" />

<Button
    android:id="@+id/Submitbtttn"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="40dp"
    android:layout_marginRight="40dp"
    android:layout_marginTop="20dp"
    android:background="#3C0505"
    android:text="Submit"
    android:textSize="20sp" />

</LinearLayout>

```

- **MainActivity.java**

```

package com.example.set_b_q2;

import...

public class MainActivity extends AppCompatActivity {
    private EditText editTextFirstname, editTextMiddlename,
    editTextLastname, editTextDOB, editTextemailId, editTextAddress;
    private Button btnSubmit;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        editTextFirstname=(EditText) findViewById(R.id.FirstName);
    }
}

```

```

        editTextMiddlename=(EditText) findViewById(R.id.MiddleName);
        editTextLastname=(EditText) findViewById(R.id.LastName);
        editTextDOB=(EditText) findViewById(R.id.DOB);
        editTextemailId=(EditText) findViewById(R.id.EmailId);
        editTextAddress=(EditText) findViewById(R.id.Address);
        btnSubmit=(Button) findViewById(R.id.Submitbtttn);
        btnSubmit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String firstname=editTextFirstname.getText().toString();
                String middlename=editTextMiddlename.getText().toString();
                String lastname=editTextLastname.getText().toString();
                String date_of_birth1=editTextDOB.getText().toString();
                String email_id1=editTextemailId.getText().toString();
                String add1=editTextAddress.getText().toString();

                Intent intent=new
Intent(MainActivity.this,MainActivity2.class);
                intent.putExtra("First Name",firstname);
                intent.putExtra("Middle Name",middlename);
                intent.putExtra("Last Name",lastname);
                intent.putExtra("DOB",date_of_birth1);
                intent.putExtra("Email-Id",email_id1);
                intent.putExtra("Address",add1);

                startActivity(intent);
            }
        });
    }
}

```

- **Activity_main2.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<TableLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#6B4F"
    android:orientation="vertical"
    tools:context=".MainActivity2">

    <TableRow
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginLeft="4dp"
        android:layout_marginTop="100dp"
        android:layout_marginRight="4dp">
        <TextView
            android:id="@+id/textFirstName"
            android:layout_marginLeft="44dp"
            android:layout_marginTop="40dp"
            android:text="First Name: "
            android:textSize="18dp"
            android:textStyle="bold" />
        <TextView

```

```

        android:id="@+id/textFirst"
        android:layout_marginLeft="44dp"
        android:layout_marginTop="40dp"
        android:text=" "
        android:textSize="18dp" />
</TableRow>

<TableRow
    android:layout_width="371dp"
    android:layout_height="wrap_content"
    android:layout_marginLeft="4dp"
    android:layout_marginTop="1dp"
    android:layout_marginRight="4dp">
    <TextView
        android:id="@+id/textMidlleName"
        android:layout_marginLeft="44dp"
        android:layout_marginTop="40dp"
        android:text="Middle Name: "
        android:textSize="18dp"
        android:textStyle="bold" />
    <TextView
        android:id="@+id/textMiddle"
        android:layout_marginLeft="44dp"
        android:layout_marginTop="40dp"
        android:text=" "
        android:textSize="18dp"/>
</TableRow>

<TableRow
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="1dp"
    android:layout_marginLeft="4dp"
    android:layout_marginRight="4dp">
    <TextView
        android:id="@+id/textLastName"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text="Last Name: "
        android:textSize="18dp"
        android:textStyle="bold"/>
    <TextView
        android:id="@+id/textLast"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text=" "
        android:textSize="18dp" />
</TableRow>

<TableRow
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="1dp"
    android:layout_marginLeft="4dp"
    android:layout_marginRight="4dp">

    <TextView
        android:id="@+id/textDateOfBirth"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text="Date of Birth: "

```



```

        android:textSize="18dp"
        android:textStyle="bold"/>
        <TextView
            android:id="@+id/textDOB"
            android:layout_marginTop="40dp"
            android:layout_marginLeft="44dp"
            android:text=" "
            android:textSize="18dp"/>
    </TableRow>

    <TableRow
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="1dp"
        android:layout_marginLeft="4dp"
        android:layout_marginRight="4dp">
        <TextView
            android:id="@+id/textAddress"
            android:layout_marginTop="40dp"
            android:layout_marginLeft="44dp"
            android:text="Address: "
            android:textSize="18dp"
            android:textStyle="bold"/>
        <TextView
            android:id="@+id/textAdd"
            android:layout_marginTop="40dp"
            android:layout_marginLeft="44dp"
            android:text=" "
            android:textSize="18dp"/>
    </TableRow>

    <TableRow
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="1dp"
        android:layout_marginLeft="4dp"
        android:layout_marginRight="4dp">
        <TextView
            android:id="@+id/textEmailId"
            android:layout_marginTop="40dp"
            android:layout_marginLeft="44dp"
            android:text="Email-Id: "
            android:textSize="18dp"
            android:textStyle="bold"/>
        <TextView
            android:id="@+id/textEmail"
            android:layout_marginTop="40dp"
            android:layout_marginLeft="44dp"
            android:text=" "
            android:textSize="18dp"/>
    </TableRow>
</TableLayout>

```

- **MainActivity2.java**

```
package com.example.set_b_q2;
```

```

import...

public class MainActivity2 extends AppCompatActivity {
    private TextView
    textViewFirst, textViewMiddle, textViewLast, textViewDOB, textViewEmail, textViewAdd;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);

        textViewFirst=(TextView) findViewById(R.id.textFirst);
        textViewMiddle=(TextView) findViewById(R.id.textMiddle);
        textViewLast=(TextView) findViewById(R.id.textLast);
        textViewDOB=(TextView) findViewById(R.id.textDOB);
        textViewEmail=(TextView) findViewById(R.id.textEmail);
        textViewAdd=(TextView) findViewById(R.id.textAdd);

        String firstname=getIntent().getStringExtra("First Name");
        String middlename=getIntent().getStringExtra("Middle Name");
        String lastname=getIntent().getStringExtra("Last Name");
        String date_of_birth1=getIntent().getStringExtra("DOB");
        String email_id1=getIntent().getStringExtra("Email-Id");
        String add1=getIntent().getStringExtra("Address");

        textViewFirst.setText(" "+firstname);
        textViewMiddle.setText(" "+middlename);
        textViewLast.setText(" "+lastname);
        textViewDOB.setText(" "+date_of_birth1);
        textViewEmail.setText(" "+email_id1);
        textViewAdd.setText(" "+add1);

    }
}

```

OR

Q2.Create new contact for designing following layout.(Contact Layout)

Solution:

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/contactimage"
        android:layout_width="200dp"
        android:layout_height="200dp"
        android:layout_marginTop="20dp"
        app:srcCompat="@drawable/contact"

```

```

        android:layout_gravity="center"/>

        <EditText
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="20dp"
            android:inputType="text"
            android:hint="Name" />

        <EditText
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="10dp"
            android:inputType="phone"
            android:hint="Contact No"/>

        <EditText
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="10dp"
            android:hint="Email-Id "
            android:inputType="textEmailAddress" />

        <Button
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="10dp"
            android:background="@color/black"
            android:text="Save" />

    </LinearLayout>

```

• Slip 12

Q1. Create a Simple Application Which Send —Hi|| message from one activity to another with help of Button (Use Intent).

Solution: same as slip 6 Q1

Q2. Create a custom "Contact" layout to hold multiple pieces of information, including: Photo, Name, Contact Number, E-mail id.

Solution: same as slip 11 Q2 (Or)

OR

Q.2 Create an application to demonstrate date and time picker.

Solution:

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:padding="15dp"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/text"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="Select Your DOB and Time"
        android:gravity="center"
        android:textStyle="bold"
        android:textSize="25dp"/>
    <EditText
        android:id="@+id/in_date"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="50dp"
        android:textSize="20dp"
        android:layout_alignParentBottom="true"
        android:layout_alignParentLeft="true"
        android:layout_alignParentStart="true"/>
    <Button
        android:id="@+id/btn_date"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="5dp"
        android:text="SELECT DATE"
        android:textSize="15dp"
        android:background="@color/black"
        android:layout_alignBottom="@id/in_date"
        android:layout_toRightOf="@id/in_date"
        android:layout_toLeftOf="@id/in_date"/>
    <EditText
        android:id="@+id/in_time"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:textSize="20dp"
        android:layout_below="@id/in_date"
        android:layout_alignParentLeft="@id/in_date"
        android:layout_alignParentStart="@id/in_date"/>
    <Button
        android:id="@+id/btn_time"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="5dp"
        android:text="SELECT TIME"
        android:textSize="15dp"
        android:background="@color/black"
        android:layout_alignBottom="@id/in_date"
        android:layout_toRightOf="@id/in_date"
        android:layout_toLeftOf="@id/in_date" />
</LinearLayout>
```

- **MainActivity.java**

```

package com.example.datetimepicker;
import...
public class MainActivity extends AppCompatActivity {
    private EditText txtDate,txtTime;
    private Button btnDate,btnTime;
    int mDay,mMonth,mYear,mHour,mMinute;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        txtDate=(EditText) findViewById(R.id.in_date);
        txtTime=(EditText) findViewById(R.id.in_time);
        btnDate=(Button) findViewById(R.id.btn_date);
        btnTime=(Button) findViewById(R.id.btn_time);

        btnDate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                final Calendar c=Calendar.getInstance();
                mYear=c.get(Calendar.YEAR);
                mMonth=c.get(Calendar.MONTH);
                mDay=c.get(Calendar.DAY_OF_MONTH);

                DatePickerDialog datePickerDialog=new
DatePickerDialog
                (MainActivity.this, new DatePickerDialog.OnDateSetListener()
                {
                    @Override
                    public void onDateSet(DatePicker view, int year,
int monthOfYear, int dayOfMonth) {
                        txtDate.setText(dayOfMonth+"-"+monthOfYear+"-
"+year);
                    }
                },mDay,mMonth,mYear);
                datePickerDialog.show();
            }
        });
        btnTime.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                final Calendar c=Calendar.getInstance();
                mHour=c.get(Calendar.HOUR_OF_DAY);
                mMinute=c.get(Calendar.MINUTE);

                TimePickerDialog timePickerDialog=new
TimePickerDialog
                (MainActivity.this, new
TimePickerDialog.OnTimeSetListener() {
                    @Override
                    public void onTimeSet(TimePicker view, int
hourOfDay, int minute) {
                        txtTime.setText(hourOfDay+":"+minute);
                    }
                },mHour,mMinute,false);
                timePickerDialog.show();
            }
        });
    }
}

```

• Slip 14

Q1. Create a Simple Application which shows Life Cycle of Activity. {Use log}.

Solution:

```
package com.example.log_lifecycle;
import...
public class MainActivity extends AppCompatActivity {
    String tag="Events";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    @Override
    public void onStart() {
        super.onStart();
        Log.d(tag, "In the onStart() event");
    }
    @Override
    public void onResume() {
        super.onResume();
        Log.d(tag, "In the onResume() event");
    }
    @Override
    public void onPause() {
        super.onPause();
        Log.d(tag, "In the onPause() event");
    }
    @Override
    public void onStop() {
        super.onStop();
        Log.d(tag, "In the onStop() event");
    }
    @Override
    public void onDestroy() {
        super.onDestroy();
        Log.d(tag, "In the onDestroy() event");
    }
}
```

Q2. Create the following layout which is changing android spinner text size with styles (Coffee).

Soltuion:

• **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical">
```

```

tools:context=".MainActivity">

<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Spinner Style"
    android:background="#4CF8"
    android:textSize="30dp"/>

<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="20dp"
    android:textSize="20dp"
    android:text="Coffee" />

<Spinner
    android:id="@+id/spinner"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="20dp"
    android:prompt="@color/black"/>
</LinearLayout>

```

• MainActivity.java

```

package com.example.spinner;
import ...
public class MainActivity extends AppCompatActivity {
    private Spinner spinner1;
    float fontsize=16;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        spinner1=(Spinner) findViewById(R.id.spinner);
        ArrayList<String> list=new ArrayList<String>();
        list.add("Filter");
        list.add("Americano");
        list.add("Latte");
        list.add("Espresso");
        list.add("Cappuccino");
        list.add("Mocha");
        list.add("Skinny Latte");
        list.add("Espresso Corretto");
        ArrayAdapter<String> adapter=new ArrayAdapter<>(this,
androidx.appcompat.R.layout.support_simple_spinner_dropdown_item,list);
        spinner1.setAdapter(adapter);
        spinner1.setOnItemSelectedListener(new
AdapterView.OnItemSelectedListener() {
            @Override
            public void onItemSelected(AdapterView<?> adapterView, View
view, int i, long l) {
                TextView tv=(TextView) adapterView.getChildAt(0);
                if(fontsize<50){
                    tv.setTextSize(fontsize);
                    fontsize+=2;
                }else{
                    fontsize=16;
                }
            }
        })
    }
}

```

```

    }
    @Override
    public void onNothingSelected(AdapterView<?> parent) {

    }
    });
}
}

```

OR

Q2. Create an Android application to send email

- **Activity_main.xml**

```

• <?xml version="1.0" encoding="utf-8"?>
  <LinearLayout
    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:orientation="vertical"
    tools:context=".MainActivity">

    <TextView
      android:id="@+id/title"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_margin="20dp"
      android:text="SEND EMAIL APP"
      android:textColor="@color/black"
      android:gravity="center"
      android:textSize="28dp"
      android:textStyle="bold"/>

    <EditText
      android:id="@+id/edit_mail_address"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_margin="15dp"
      android:padding="10dp"
      android:hint="Enter Recipient Email Address"
      android:background="@color/white"
      android:textSize="18sp"/>

    <EditText
      android:id="@+id/edit_mail_subject"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_margin="15dp"
      android:padding="10dp"
      android:hint="Enter your subject here"
      android:background="@color/white"
      android:textSize="18sp"/>

    <EditText
      android:id="@+id/edit_mail_message"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"

```



```

        android:layout_margin="15dp"
        android:lines="6"
        android:padding="10dp"
        android:hint="Write your message here"
        android:background="@color/white"
        android:textSize="18sp"/>

        <Button
            android:id="@+id/send_btn"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_margin="15dp"
            android:layout_gravity="center"
            android:backgroundTint="#4CAF50"
            android:text="Send Email"
            android:textSize="16sp"/>
    </LinearLayout>

```

• MainActivity.java

```

• package com.example.send_email;
import...
public class MainActivity extends AppCompatActivity {
    private EditText editTextTo,editTextSubject,editTextMessage;
    Button send;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        editTextTo=(EditText) findViewById(R.id.edit_mail_address);
        editTextSubject=(EditText)
        findViewById(R.id.edit_mail_subject);
        editTextMessage=(EditText)
        findViewById(R.id.edit_mail_message);
        send=(Button) findViewById(R.id.send_btn);

        send.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String to=editTextTo.getText().toString();
                String subject=editTextSubject.getText().toString();
                String message=editTextMessage.getText().toString();

                Intent email=new Intent(Intent.ACTION_SEND);
                email.putExtra(Intent.EXTRA_EMAIL,new String[]{ to});
                email.putExtra(Intent.EXTRA_SUBJECT,subject);
                email.putExtra(Intent.EXTRA_TEXT,message);

                email.setType("message/rfc822");
                startActivity(Intent.createChooser(email,"Choose an
Email client: "));
            }
        });
    }
}

```

• Slip 15

● **Q1. Design following-add a border to an Android Layout.**

```
<?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="#e6e6e6"
android:padding="10dp"
tools:context=".MainActivity">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="Hello World!"
        android:background="#3F51B5"
        android:gravity="center"
        android:textColor="@color/white"
        android:textSize="30dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"/>
</androidx.constraintlayout.widget.ConstraintLayout>
```

Q2. Create simple application with Login Screen. On successful login, gives message go to next Activity (Without Using Database)

Solution:

● **Activity main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
android:padding="30dp"
tools:context=".MainActivity">

    <EditText
        android:id="@+id/EmailAddress"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="80dp"
        android:inputType="textEmailAddress"
        android:hint="Email-Id"/>

    <EditText
        android:id="@+id/Password"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:inputType="textPassword">
```

```

        android:hint="Password"/>

        <Button
            android:id="@+id/bttn_Login"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="20dp"
            android:text="Login" />

        <TextView
            android:id="@+id/textView"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="20dp"
            android:textSize="15dp"
            android:textAlignment="center"
            android:text="Not a Member ? Sign up Now..!" />
    </LinearLayout>

```

• MainActivity.java

```

package com.example.login_page;
import ...
public class MainActivity extends AppCompatActivity {
    private EditText editTextEmailId,editTextPassword;
    private Button btn_login;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        editTextEmailId=(EditText) findViewById(R.id.EmailAddress);
        editTextPassword=(EditText) findViewById(R.id.Password);
        btn_login=(Button) findViewById(R.id.bttn_Login);

        btn_login.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String email=editTextEmailId.getText().toString();
                String pass=editTextPassword.getText().toString();
                if(email.equals("jaya@gmail.com") && pass.equals("jaya273")){
                    Toast.makeText(MainActivity.this, "Login Successfully",
Toast.LENGTH_SHORT).show();
                    Intent intent=new
Intent(MainActivity.this,MainActivity2.class);
                    intent.putExtra("email",email);
                    startActivity(intent);
                }else {
                    Toast.makeText(MainActivity.this, "Invalid Email-Id &
Password", Toast.LENGTH_SHORT).show();
                }
            }
        });
    }
}

```

• Activity main2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:padding="25dp"
    tools:context=".MainActivity2">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="25dp" />

    <Button
        android:id="@+id/btnn_LogOut"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="Logout" />
</LinearLayout>
```

• MainActivity.java

```
package com.example.login_page;
import...
public class MainActivity2 extends AppCompatActivity {
    private TextView textView;
    private Button btnLogout;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);

        textView=(TextView) findViewById(R.id.textView2);
        btnLogout=(Button) findViewById(R.id.btnn_LogOut);

        String email=getIntent().getStringExtra("email");
        textView.setText("Welcome"+email);

        btnLogout.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent=new Intent(MainActivity2.this,MainActivity.class);
                startActivity(intent);
                Toast.makeText(MainActivity2.this, "Logout Succesfully",
                    Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```

• Slip 16

Q1.Create an Android App, it reads the Students Details (Name, Surname, Class, Gender, Hobbies, Marks) and display the all information in another activity in table format on click of Submit button.

Solution:

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/FirstName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="First Name"
        android:inputType="text" />

    <EditText
        android:id="@+id/LastName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:ems="10"
        android:hint="Last Name"
        android:inputType="text" />

    <EditText
        android:id="@+id/Class"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="Class"
        android:inputType="text" />

    <EditText
        android:id="@+id/Gender"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="Gender"
        android:inputType="text" />

    <EditText
        android:id="@+id/Hobbies"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="Hobbies"
        android:inputType="text" />

    <EditText
        android:id="@+id/Marks"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="Marks"
        android:inputType="text" />

    <Button
        android:id="@+id/Submit"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="auto"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:text="Submit"
        android:inputType="text" />

</LinearLayout>
```

```

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_marginTop="20dp"
        android:hint="Hobbies"
        android:inputType="text" />

<EditText
    android:id="@+id/Marks"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="40dp"
    android:layout_marginRight="40dp"
    android:layout_marginTop="20dp"
    android:hint="Marks"
    android:inputType="numberDecimal" />

<Button
    android:id="@+id/Submitbtttn"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="40dp"
    android:layout_marginRight="40dp"
    android:layout_marginTop="20dp"
    android:background="#3C0505"
    android:text="Submit"
    android:textSize="20sp" />

</LinearLayout>

```

- **MainActivity.java**

```

package com.example.slip_no_16;
import ...

public class MainActivity extends AppCompatActivity {
    private EditText editTextFirstname, editTextLastname, editTextClass,
        editTextGender, editTextHobbies, editTextMarks;
    private Button btnSubmit;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        editTextFirstname=(EditText) findViewById(R.id.FirstName);
        editTextLastname=(EditText) findViewById(R.id.LastName);
        editTextClass=(EditText) findViewById(R.id.Class);
        editTextGender=(EditText) findViewById(R.id.Gender);
        editTextHobbies=(EditText) findViewById(R.id.Hobbies);
        editTextMarks=(EditText) findViewById(R.id.Marks);
        btnSubmit=(Button) findViewById(R.id.Submitbtttn);

        btnSubmit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String firstname=editTextFirstname.getText().toString();
                String lastname=editTextLastname.getText().toString();
                String class1=editTextClass.getText().toString();
                String gender1=editTextGender.getText().toString();
            }
        });
    }
}

```

```

        String hobbies1=editTextHobbies.getText().toString();
        String marks1=editTextMarks.getText().toString();

        Intent intent=new Intent(MainActivity.this,MainActivity2.class);
        intent.putExtra("First Name",firstname1);
        intent.putExtra("Last Name",lastname1);
        intent.putExtra("Class",class1);
        intent.putExtra("Gender",gender1);
        intent.putExtra("Hobbies",hobbies1);
        intent.putExtra("Marks",marks1);

        startActivity(intent);
    }
}
});
}
}

```

- **Activity_main2.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<TableLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity2">

    <TableRow
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginLeft="4dp"
        android:layout_marginTop="100dp"
        android:layout_marginRight="4dp">
        <TextView
            android:id="@+id/textFirstName"
            android:layout_marginLeft="44dp"
            android:layout_marginTop="40dp"
            android:text="First Name: "
            android:textSize="18dp"
            android:textStyle="bold" />
        <TextView
            android:id="@+id/textFirst"
            android:layout_marginLeft="44dp"
            android:layout_marginTop="40dp"
            android:text=" "
            android:textSize="18dp" />
    </TableRow>

    <TableRow
        android:layout_width="371dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="4dp"
        android:layout_marginTop="1dp"
        android:layout_marginRight="4dp">
        <TextView
            android:id="@+id/textLastName"
            android:layout_marginLeft="44dp"
            android:layout_marginTop="40dp"

```

```

        android:text="Last Name: "
        android:textSize="18dp"
        android:textStyle="bold" />
    <TextView
        android:id="@+id/textLast"
        android:layout_marginLeft="44dp"
        android:layout_marginTop="40dp"
        android:text=" "
        android:textSize="18dp"/>
</TableRow>

<TableRow
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="1dp"
    android:layout_marginLeft="4dp"
    android:layout_marginRight="4dp">
    <TextView
        android:id="@+id/textClass1"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text="Class: "
        android:textSize="18dp"
        android:textStyle="bold"/>
    <TextView
        android:id="@+id/textClass"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text=" "
        android:textSize="18dp" />
</TableRow>

<TableRow
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="1dp"
    android:layout_marginLeft="4dp"
    android:layout_marginRight="4dp">
    <TextView
        android:id="@+id/textGender1"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text="Gender : "
        android:textSize="18dp"
        android:textStyle="bold"/>
    <TextView
        android:id="@+id/textGender"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text=" "
        android:textSize="18dp"/>
</TableRow>

<TableRow
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="1dp"
    android:layout_marginLeft="4dp"
    android:layout_marginRight="4dp">
    <TextView
        android:id="@+id/textHobbies1"

```



```

        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text="Hobbies: "
        android:textSize="18dp"
        android:textStyle="bold"/>
    <TextView
        android:id="@+id/textHobbies"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text=" "
        android:textSize="18dp"/>
</TableRow>

<TableRow
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="1dp"
    android:layout_marginLeft="4dp"
    android:layout_marginRight="4dp">
    <TextView
        android:id="@+id/textMarks1"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text="Marks: "
        android:textSize="18dp"
        android:textStyle="bold"/>
    <TextView
        android:id="@+id/textMarks"
        android:layout_marginTop="40dp"
        android:layout_marginLeft="44dp"
        android:text=" "
        android:textSize="18dp"/>
</TableRow>
</TableLayout>

```

- **MainActivity2.java**

```

package com.example.slip_no_16;
import ...
public class MainActivity2 extends AppCompatActivity {
    private TextView textViewFirst, textViewLast, textViewClass,
        textViewGender, textViewHobbies, textViewMarks;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);

        textViewFirst=(TextView) findViewById(R.id.textFirst);
        textViewLast=(TextView) findViewById(R.id.textLast);
        textViewClass=(TextView) findViewById(R.id.textClass);
        textViewGender=(TextView) findViewById(R.id.textGender);
        textViewHobbies=(TextView) findViewById(R.id.textHobbies);
        textViewMarks=(TextView) findViewById(R.id.textMarks);

        String firstName=getIntent().getStringExtra("First Name");
        String lastName=getIntent().getStringExtra("Last Name");
        String class1=getIntent().getStringExtra("Class");
        String gender1=getIntent().getStringExtra("Gender");
        String hobbies1=getIntent().getStringExtra("Hobbies");
    }
}

```

```

String marks1=getIntent().getStringExtra("Marks");

textViewFirst.setText(" "+firstname1);
textViewLast.setText(" "+lastname1);
textViewClass.setText(" "+class1);
textViewGender.setText(" "+gender1);
textViewHobbies.setText(" "+hobbies1);
textViewMarks.setText(" "+marks1);
    }
}

```

Q2. Create an Android Application that Demonstrate TimePicker and display Selected Time on TextView.

Solution:

- **Activity_main.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/text"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="Select Your Time"
        android:textSize="25dp"
        android:textStyle="bold"
        android:gravity="center"/>

    <EditText
        android:id="@+id/in_time"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="50dp"
        android:textStyle="bold"
        android:textSize="25dp"
        android:layout_alignParentBottom="@+id/in_time"
        android:layout_alignParentLeft="@+id/in_time"
        android:layout_alignParentStart="@+id/in_time"/>

    <Button
        android:id="@+id/bttn_time"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:text="SELECT TIME"
        android:textSize="20dp"/>
</LinearLayout>

```

- **MainActivity.java**

```

package com.example.timepicker;
import ...

public class MainActivity extends AppCompatActivity {
    private EditText txtTime;
    private Button btnTime;
    int mHour,mMinute;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        txtTime=(EditText) findViewById(R.id.in_time);
        btnTime=(Button) findViewById(R.id.bttm_time);

        btnTime.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                final Calendar c=Calendar.getInstance();
                mHour=c.get(Calendar.HOUR_OF_DAY);
                mMinute=c.get(Calendar.MINUTE);
                TimePickerDialog timePickerDialog=
                    new TimePickerDialog(MainActivity.this,
                    new TimePickerDialog.OnTimeSetListener() {
                        @Override
                        public void onTimeSet(TimePicker view, int hourOfDay, int minute){
                            txtTime.setText(hourOfDay+":"+minute);
                        }
                    },mHour,mMinute,false);
                timePickerDialog.show();
            }
        });
    }
}

```

• Slip 17

Q1. Write an android code to make phone call using Intent.

Solution: Same As Slip 7 Q2

Q2. Construct an Android Application to accept a number and calculate Factorial and Sum of Digits of a given number using Context Menu.

• **Activity_main.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

```

```

<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Factorial And Sum"
    android:textSize="20sp"
    android:layout_margin="50dp"
    android:gravity="center"/>
<EditText
    android:id="@+id/Number"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="20dp"
    android:hint="Enter the number"
    android:inputType="number"/>
<Button
    android:id="@+id/btn_Calc"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Calculate"
    android:layout_gravity="center"
    android:layout_marginTop="10dp"/>
<TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text=""
    android:textSize="20sp"
    android:layout_marginTop="50dp"/>
<TextView
    android:id="@+id/Result"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text=""
    android:textSize="20sp"
    android:layout_marginTop="20dp"/>
</LinearLayout>

```

• MainActivity.java

```

package com.example.slip_17_q2;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.ContextMenu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    EditText editTextNumber;
    TextView tv1, textViewResult;
    Button btnCalculate;
}

```

```

int num=0;
int fact=1;
int sum=0;

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

    editTextNumber=(EditText) findViewById(R.id.Number);
    tv1=(TextView) findViewById(R.id.textView);
    textViewResult=(TextView) findViewById(R.id.Result);
    btnCalculate=(Button) findViewById(R.id.btn_Calc);

    registerForContextMenu(tv1);

    btnCalculate.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            num=Integer.parseInt(editTextNumber.getText().toString());
            tv1.setText("Hold for action "+num);
        }
    });
}

@Override
public void onCreateContextMenu(ContextMenu menu, View v,
ContextMenu.ContextMenuInfo menuInfo) {
    super.onCreateContextMenu(menu, v, menuInfo);
    menu.setHeaderTitle("Choose Your Action");

    menu.add(0,v.getId(),0,"Factorial");
    menu.add(0,v.getId(),0,"Sum");
}

@Override
public boolean onContextItemSelected(@NonNull MenuItem item) {
    super.onContextItemSelected(item);
    if (item.getTitle() == "Factorial") {
        for(int i=1; i<=num; i++){
            fact=fact*i;
        }
        textViewResult.setText("Factorial of given number : "+fact);
    }else
    if(item.getTitle()=="Sum"){
        for(sum=0;num!=0;num=num/10)
        {
            sum=sum+num%10;
        }
        textViewResult.setText("Sum of given number is: "+sum);
    }
    return true;
}
}

```

• Slip 18

Q1. Create an Android Application that Demonstrate Alert Dialog Box.

Solution:

- **Activity main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/buttonShowDialog"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Show Alert Dialog"
        android:layout_marginTop="250dp"
        android:layout_gravity="center"/>

</LinearLayout>
```

- **MainActivity.xml**

```
package com.example.slip_18_q1;

import ...
public class MainActivity extends AppCompatActivity {
    private Button buttonShowDialog;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        buttonShowDialog = findViewById(R.id.buttonShowDialog);
        buttonShowDialog.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                AlertDialog.Builder builder = new
AlertDialog.Builder(MainActivity.this);
                builder.setTitle("Alert Dialog Title");
                builder.setMessage("This is a simple alert dialog
box.");
                builder.setPositiveButton("OK", new DialogInterface.OnClickListener()
{
                    @Override
                    public void onClick(DialogInterface dialog, int which) {
                        dialog.dismiss();
                    }
                });
                AlertDialog alertDialog = builder.create();
                alertDialog.show();
            }
        });
    }
}
```

Q2. Create an Android Application to accept two numbers and find power and Average. Display the result on the next activity using Context Menu.

• Slip 19

Q1. Create an Android Application that on/off the bulb using Toggle Button.

• Activity_main.xml

```
• <?xml version="1.0" encoding="utf-8"?>
  <LinearLayout
    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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <ImageView
      android:id="@+id/imageBulbOff"
      android:layout_width="350dp"
      android:layout_height="350dp"
      android:layout_marginTop="20dp"
      android:layout_marginStart="15dp"
      app:srcCompat="@drawable/bulboff" />

    <ToggleButton
      android:id="@+id/switch1"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_marginTop="20dp"
      android:textSize="20dp"
      android:text="OFF"
      android:textOff="OFF"
      android:textOn="ON"/>

  </LinearLayout>
```

• MainActivity.xml

```
• package com.example.switch_bulb;

import...
public class MainActivity extends AppCompatActivity {
    private ImageView imageView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        imageView=(ImageView) findViewById(R.id.imageBulbOff);
        ToggleButton tb=(ToggleButton) findViewById(R.id.switch1);

        tb.setOnCheckedChangeListener(new
        CompoundButton.OnCheckedChangeListener() {
            @Override
```

```

        public void onCheckedChanged(CompoundButton buttonView,
        boolean isChecked) {
            if (isChecked) {

                imageView.setImageDrawable(getResources().getDrawable(R.drawable.bulb
                on));

            } else {

                imageView.setImageDrawable(getResources().getDrawable(R.drawable.bulb
                off));

            }

        }

    });
}
}

```

Q2. Design Following Screens using Table Layout. Display the entered text on next activity

• Activity main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<TableLayout 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:paddingRight="30dp"
    android:paddingLeft="30dp"
    android:gravity="center"
    tools:context=".MainActivity">

    <TextView
        android:layout_marginTop="20dp"
        android:layout_height="wrap_content"
        android:layout_width="wrap_content"
        android:text="Membership Form"
        android:textSize="40dp"
        android:gravity="center"
        android:textColor="#B611D3"/>

    <TableRow
        android:layout_marginTop="30dp">

        <EditText
            android:layout_width="300dp"
            android:layout_height="wrap_content"
            android:hint="Full Name"
            android:id="@+id/name"/>

    </TableRow>

    <TableRow
        android:layout_marginTop="30dp">

        <RadioGroup
            android:id="@+id/rdgrp"
            android:layout_width="329dp"
            android:layout_height="45dp"
            android:gravity="center"
            android:orientation="horizontal"

```



```

        app:layout_constraintBottom_toTopOf="@+id/button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView">

        <TextView
            android:layout_width="99dp"
            android:layout_height="match_parent"
            android:text="gender"
            android:textSize="20dp" />

        <RadioButton
            android:id="@+id/rdmale"
            android:layout_width="69dp"
            android:layout_height="match_parent"
            android:text="M" />

        <RadioButton
            android:id="@+id/rdfemale"
            android:layout_width="64dp"
            android:layout_height="match_parent"
            android:text="F" />

        <RadioButton
            android:id="@+id/rdothers"
            android:layout_width="98dp"
            android:layout_height="match_parent"
            android:text="other" />
    </RadioGroup>
</TableRow>

<TableRow
    android:layout_marginTop="40dp"
    android:layout_marginRight="10dp"
    android:layout_marginLeft="10dp">

    <EditText
        android:layout_marginLeft="10dp"
        android:layout_marginRight="30dp"
        android:id="@+id/weight"
        android:hint="weight"
        android:textSize="25dp" />

    <EditText
        android:layout_marginRight="40dp"
        android:layout_marginLeft="-150dp"
        android:id="@+id/height"
        android:hint="height"
        android:textSize="25dp"/>

</TableRow>

<TableRow

    android:layout_marginTop="30dp"
    android:layout_marginRight="10dp"
    android:layout_marginLeft="10dp">

    <EditText
        android:id="@+id/goalweight"
        android:layout_width="291dp"

```

```

        android:layout_height="match_parent"
        android:layout_marginLeft="10dp"
        android:layout_marginRight="30dp"
        android:hint="goal weight"
        android:textSize="25dp" />

        <EditText
            android:id="@+id/age"
            android:layout_width="148dp"
            android:layout_marginLeft="-150dp"
            android:layout_marginRight="40dp"
            android:hint="age"
            android:textSize="25dp" />
    </TableRow>

    <TableRow
        android:layout_marginTop="30dp">

        <EditText
            android:layout_width="300dp"
            android:layout_height="wrap_content"
            android:hint="phone"
            android:id="@+id/phone"/>
    </TableRow>

    <TableRow
        android:layout_marginTop="30dp">

        <EditText
            android:id="@+id/add"
            android:layout_width="325dp"
            android:layout_height="match_parent"
            android:hint="Address" />
    </TableRow>

    <TableRow
        android:layout_marginTop="10dp">
        <CheckBox
            android:text="I have read,understood and accepted membership
rules"/>
    </TableRow>

    <TableRow
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="10dp">

        <Button
            android:id="@+id/submit"
            android:layout_height="40dp"
            android:shadowColor="#B611D3"
            android:text="submit" />
    </TableRow>

</TableLayout>

```

• MainActivity.java

```

package com.example.slip_19_q2;
import ...
public class MainActivity extends AppCompatActivity {

    EditText name,phone,add,height,weight,goalweight,age;
    RadioGroup rdgrp;
    Button submit;
    RadioButton radioButtonSelected;

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

        submit=(Button) findViewById(R.id.submit);
        name=(EditText) findViewById(R.id.name);
        phone=(EditText) findViewById(R.id.phone);
        add=(EditText) findViewById(R.id.add);
        height=(EditText) findViewById(R.id.height);
        weight=(EditText) findViewById(R.id.weight);
        goalweight=(EditText) findViewById(R.id.goalweight);
        age=(EditText) findViewById(R.id.age);
        rdgrp=(RadioGroup) findViewById(R.id.rdgrp);

        submit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int selectedId=rdgrp.getCheckedRadioButtonId();
                if(selectedId!=-1){
                    Toast.makeText(MainActivity.this,"plz select your
gender",Toast.LENGTH_LONG).show();
                }else {
                    radioButtonSelected=findViewById(selectedId);
                    String selectedgender = radioButtonSelected.getText().toString();
                    Toast.makeText(MainActivity.this,"gender is
:"+selectedgender,Toast.LENGTH_LONG).show();
                }

                String name1=name.getText().toString();
                String phone1=phone.getText().toString();
                String add1=add.getText().toString();
                String weight1=weight.getText().toString();
                String height1=height.getText().toString();
                String goalweight1=goalweight.getText().toString();
                String age1=age.getText().toString();
                String
selectedgender1=radioButtonSelected.getText().toString();

                Bundle bundle=new Bundle();
                bundle.putString("name",name1);
                bundle.putString("phone",phone1);
                bundle.putString("add",add1);
                bundle.putString("height",height1);
                bundle.putString("weight",weight1);
                bundle.putString("gweight",goalweight1);
                bundle.putString("age",age1);
                bundle.putString("gender",selectedgender1);

                Intent intent=new Intent(MainActivity.this, MainActivity2.class);
                intent.putExtras(bundle);
                startActivity(intent);
            }
        });
    }
}

```

```

    }
    });
}
}

```

• Activity main2.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity2">

    <TextView
        android:textSize="25dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Name"/>
    <TextView
        android:textSize="25dp"

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/name"/>
    <TextView
        android:textSize="25dp"
        android:layout_marginTop="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="gender"/>
    <TextView
        android:textSize="25dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/gender"/>
    <TextView
        android:textSize="25dp"
        android:layout_marginTop="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="height"/>
    <TextView
        android:textSize="25dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/height"/>
    <TextView
        android:textSize="25dp"
        android:layout_marginTop="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="weight"/>
    <TextView
        android:textSize="25dp"
        android:layout_width="match_parent"

```

```

        android:layout_height="wrap_content"
        android:id="@+id/weight"/>
    <TextView
        android:textSize="25dp"
        android:layout_marginTop="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="goal weight"/>
    <TextView
        android:textSize="25dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/goalweight"/>
    <TextView
        android:textSize="25dp"
        android:layout_marginTop="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="age"/>
    <TextView
        android:textSize="25dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/age"/>
    <TextView
        android:textSize="25dp"
        android:layout_marginTop="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="phone"/>
    <TextView
        android:textSize="25dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/phone"/>
    <TextView
        android:textSize="25dp"
        android:layout_marginTop="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="address"/>
    <TextView
        android:textSize="25dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/add"/>

</LinearLayout>

```

• MainActivity2.java

```

package com.example.slip_19_q2;

import androidx.appcompat.app.AppCompatActivity;

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

```

```

public class MainActivity2 extends AppCompatActivity {

    TextView name1, phone1, height1, weight1, goalweight1, age1, add1,
    gender1;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);

        Bundle bundle = getIntent().getExtras();

        name1 = (TextView) findViewById(R.id.name);
        phone1 = (TextView) findViewById(R.id.phone);
        height1 = (TextView) findViewById(R.id.height);
        weight1 = (TextView) findViewById(R.id.weight);
        goalweight1 = (TextView) findViewById(R.id.goalweight);
        age1 = (TextView) findViewById(R.id.age);
        add1 = (TextView) findViewById(R.id.add);
        gender1 = (TextView) findViewById(R.id.gender);

        if (bundle != null) {
            String name = bundle.getString("name");
            String selectedgender = bundle.getString("gender");
            String height = bundle.getString("height");
            String weight = bundle.getString("weight");
            String age = bundle.getString("age");
            String gw = bundle.getString("gweight");
            String phone = bundle.getString("phone");
            String add = bundle.getString("add");

            name1.setText(name);
            gender1.setText(selectedgender);
            height1.setText(height);
            weight1.setText(weight);
            age1.setText(age);
            goalweight1.setText(gw);
            phone1.setText(phone);
            add1.setText(add);
        }
    }
}

```

• Slip 20

Q1. Create Android Program to Change the Image on the Screen.

• **Activity_main.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
        android:padding="20dp"
        tools:context=".MainActivity">

        <ImageView
            android:id="@+id/img"
            android:layout_width="250dp"
            android:layout_height="250dp"
            android:layout_gravity="center"
            android:layout_marginTop="20dp"
            android:src="@drawable/img"/>

        <Button
            android:id="@+id/btn_img"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:layout_marginTop="20dp"
            android:text="Change Image"/>

    </LinearLayout>

```

• MainActivity.java

```

package com.example.slip_20_q1;

import ...

public class MainActivity extends AppCompatActivity {

    ImageView imageView;
    Button btn;
    int currentIndex=0;
    int[] imageArray={R.drawable.img,R.drawable.img_1,R.drawable.img_2};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        imageView=(ImageView) findViewById(R.id.img);
        btn=(Button) findViewById(R.id.btn_img);
        imageView.setImageResource(imageArray[currentIndex]);
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                currentIndex=(currentIndex+1)% imageArray.length;
                imageView.setImageResource(imageArray[currentIndex]);
            }
        });
    }
}

```

Q2. Demonstrate Array Adapter using List View to display list of Country.

Solution:

• Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
    tools:context=".MainActivity">
    <ListView
        android:id="@+id/ListView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:padding="16dp"/>
</RelativeLayout>
```

• MainActivity.java

```
package com.example.slip_20_q2;
import...
public class MainActivity extends AppCompatActivity {

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

        String[] fruits={"India","SriLanka","Orange","China","Bangladesh","Italy"};
        ArrayAdapter<String> adapter=new
        ArrayAdapter<>(this,android.R.layout.simple_list_item_1,fruits);
        ListView listView1=findViewById(R.id.ListView);
        listView1.setAdapter(adapter);
    }
}
```