Slip1

Q1 Create a simple application which shows the Life cycle of android

MainActivity.java

```
package com.example.actitvitylifecycle;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
public class MainActivityextends AppCompatActivity{
String tag="Events";
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
Log.d(tag, "In on create Event");
public void onStart() {
super.onStart();
Log.d(tag,"In onStart() event");
public void onRestart() {
super.onRestart();
Log.d(tag,"InonRestart() event");
public void onResume(){
super.onResume();
Log.d(tag,"InonResume() event");
public void onPause() {
super.onPause();
Log.d(tag,"InonPause() event");
public void onStop() {
super.onStop();
Log.d(tag,"InonStop() event");
public void onDestroy() {
super.onDestroy();
Log.d(tag,"InonDestroy() event");
```

Q2 Create an android application that demostrate DatePicker and DatePickerDialog

Xml file

```
<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">
    <Button
       android:id="@+id/button"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout marginTop="500dp"
        android:layout gravity="center"
        android:text="Select Date"/>
    <TextView
        android:id="@+id/textView"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:textSize="24sp"
        android:layout gravity="center"/>
</LinearLayout>
```

Java file

```
package com.example.slip1datepickerapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.app.DatePickerDialog;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
```

```
import android.widget.TextView;
import java.util.Calendar;
public class MainActivity extends AppCompatActivity {
   private Button button;
   private TextView textView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        button = findViewById(R.id.button);
        textView = findViewById(R.id.textView);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                DatePickerDialog datePickerDialog = new
DatePickerDialog (MainActivity.this,
                        new DatePickerDialog.OnDateSetListener() {
                            @Override
                            public void onDateSet (DatePicker view, int year,
int month, int dayOfMonth) {
                                String date = dayOfMonth + "/" + (month + 1)
+ "/" + year;
                                textView.setText(date);
                        }, Calendar.getInstance().get(Calendar.YEAR),
Calendar.getInstance().get(Calendar.MONTH),
Calendar.getInstance().get(Calendar.DAY_OF_MONTH));
                datePickerDialog.show();
        });
}
```

slip2

Q1. Create an android application which reads a positive number from the user and display its factorial value in another activity

xml file 1

```
<?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/edit text"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:layout marginStart="50dp"
        android:layout marginEnd="50dp"
        android:layout marginTop="300dp"
        android:hint="Enter any number"/>
    <Button
        android:id="@+id/btn calculate"
        android:layout width="match parent"
        android:layout_height="wrap content"
        android:layout marginStart="40dp"
        android:layout marginEnd="38dp"
        android:layout marginTop="30dp"
        android:text="Calculate Factorial"/>
</LinearLayout>
Java file 1
package com.example.slip2factorialapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    EditText editText;
    Button btnCalculate;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
setContentView(R.layout.activity main);
        editText=findViewById(R.id.edit text);
        btnCalculate=findViewById(R.id.btn calculate);
        btnCalculate.setOnClickListener(new View.OnClickListener() {
            Bundle bundle=new Bundle();
            @Override
            public void onClick(View view) {
                int user, fact=1 , i;
                user= Integer.parseInt(editText.getText().toString());
                 for (i=1; i<=user; i++)</pre>
                     fact=fact*i;
                 bundle.putInt("key", fact);
                 Intent intent =new
Intent (MainActivity.this, FactorialActivity.class);
                 intent.putExtras(bundle);
                 startActivity(intent);
       });
   }
}
xml file2
<?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:gravity="center"
    tools:context=".FactorialActivity">
        android:id="@+id/text view result"
        android:layout_width="match parent"
        android:layout height="wrap content"
        android:gravity="center"
        android:text=""/>
</LinearLayout>
Java file2
```

package com.example.slip2factorialapplication;

```
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;
public class FactorialActivity extends AppCompatActivity {
    TextView textView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity factorial);
        textView=(TextView) findViewById(R.id.text view result);
        Intent intent= getIntent();
        Bundle bundle= intent.getExtras();
        int val =bundle.getInt("key");
        String str =String.valueOf(val);
        textView.setText(str);
   }
}
```

slip3

Q1. Create an Android application that will change color of the collage name on click Name on Click of Push Button and change the font style of text view using xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    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=".ClickButton">
    <TextView
       android:id="@+id/collage name"
       android:layout width="wrap content"
       android:layout height="wrap content"
       android:text="S.M Joshi Collage"
       android:textSize="30dp"
        android:textStyle="bold"
        android:layout marginLeft="50dp"
        android:layout marginRight="50dp"
```

```
android:textAlignment="center"
        android:layout marginTop="100dp"/>
     <LinearLayout</pre>
         android:layout width="match parent"
         android:layout height="match parent">
    <Button
        android:id="@+id/change button"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout weight="1"
        android:text="push"
        android:textSize="28dp"
        android:textStyle="bold"
        android:layout marginLeft="30dp"
        android:layout marginTop="30dp"
        android:layout marginRight="30dp" />
</LinearLayout>
</LinearLayout>
Java file
package com.example.firstandroidproject;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Color;
import android.graphics.Typeface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class ClickButton extends AppCompatActivity {
    TextView collage name; //variable define here TextView id name here
declaration of variable
    Button change button ;
                              // define variable i.e means id name of view
.ie Button id name must define here
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity click button);
        collage name=(TextView) findViewById(R.id.collage name);// here we
initialize above variable by typecast collage name is TextView
        change button=(Button) findViewById(R.id.change button);
        // here we applied click event on Button and change name i.e change
name text
        // so put setListener for all
        change button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
              //here change collage name ka text will change
              collage name.setTextColor(Color.RED);
        });
```

```
}
```

Q2.Crea an Android application Ap [p it reads the Student Detail (Name Surname, Class, Gender, Hobbies, Marks) display the all information in another activity in table format on click of submit button

Xml file1 <LinearLayout>

```
<EditText
android:id="@+id/txtname"
android:layout width="match parent"
android:layout height="wrap_content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Enter Name"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txtsurname"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Enter SurName"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txtclass"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Enter Classname"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txtGender"
android:layout width="match parent"
android:layout height="wrap_content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Gender"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txthobbies"
android:layout width="match parent"
android:layout height="wrap content"
```

```
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Enter Hobbies"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txtmarks"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:inputType="number"
android:hint="Enter Marks"
android:layout marginTop="20dp"/>
<Button
android:id="@+id/btnsubmit"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginTop="50dp"
android:text="Submit"
android:layout marginLeft="50dp"
android:layout marginRight="50dp"/>
```

</LinearLayout>

Java file 1

```
Public class MainActivityextends AppCompatActivity{
EditTexttxtname, txtsurname, txtclass, txtGender, txthobbies, txtmarks;
Button btnsubmit;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
txtname=(EditText) findViewById(R.id.txtname);
txtsurname=(EditText) findViewById(R.id.txtsurname);
txtclass public = (EditText) findViewById(R.id.txtclass);
txtGender=(EditText) findViewById(R.id.txtGender);
txthobbies=(EditText) findViewById(R.id.txthobbies);
txtmarks=(EditText) findViewById(R.id.txtmarks);
btnsubmit=(Button) findViewById(R.id.btnsubmit);
btnsubmit.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
String name=txtname.getText().toString().trim();
String surname=txtsurname.getText().toString().trim();
String classes=txtclass.getText().toString().trim();
String Gender=txtGender.getText().toString().trim();
String hobbies=txthobbies.getText().toString().trim();
String marks=txtmarks.getText().toString().trim();//fetching data
Bundle bundle=new Bundle();//bundle import..... variable careate
```

```
//bundle variable use...
bundle.putString("name", name); //key and where stroed name
bundle.putString("surname", surname);
bundle.putString("classes", classes);
bundle.putString("Gender", Gender);
bundle.putString("hobbies", hobbies);
bundle.putString("marks", marks);
//new intent open karnahai
Intent intent=new Intent (MainActivity.this, MainActivity2.class);
intent.putExtras(bundle);
startActivity(intent);
});
}
}
Xml file2
<TableLayout>
<TableRow
android:layout marginTop="300dp"
android:layout marginLeft="40dp"
android:layout marginRight="40dp">
<TextView
android:id="@+id/txt name"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="30dp"
android:layout marginLeft="40dp"
android:text="Hello"
android:textAlignment="center"/>
<TextView
android:id="@+id/txt surname"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"/>
</TableRow>
<TableRow
android:layout marginTop="30dp"
android:layout marginLeft="40dp"
android:layout marginRight="40dp">
<TextView
android:id="@+id/txt classname"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"
/>
<TextView
android:id="@+id/txt Gender"
```

```
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"/>
</TableRow>
<TableRow
android:layout marginTop="30dp"
android:layout marginLeft="40dp"
android:layout marginRight="40dp">
<TextView
android:id="@+id/txt hobbies"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"/>
<TextView
android:id="@+id/txt marks"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"/>
</TableRow>
</TableLayout>
Java file 2
TextViewtxt name, txt surname, txt classname, txt Gender, txt hobbies, txt marks;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main2);
Bundle bundle=getIntent().getExtras();
txt name= (TextView) findViewById(R.id.txt name);
txt surname=(TextView) findViewById(R.id.txt surname);
txt classname=(TextView) findViewById(R.id.txt classname);
txt Gender=(TextView) findViewById(R.id.txt Gender);
txt hobbies=(TextView) findViewById(R.id.txt hobbies);
txt marks=(TextView) findViewById(R.id.txt marks);
if( bundle != null)
       {
String name = bundle.getString("name");
String surname = bundle.getString("surname");
String classes = bundle.getString("classes");
String Gender = bundle.getString("Gender");
String hobbies = bundle.getString("hobbies");
String marks = bundle.getString("marks");
```

```
txt_name.setText(name);
txt_surname.setText(surname);
txt_classname.setText(classes);
txt_Gender.setText(Gender);
txt_hobbies.setText(hobbies);
txt_marks.setText(marks);
}
}
}
```

SLIP NO 4

Q1) Create a Simple Application, that performs Arithmetic Operations. (Use constraint layout)

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http:/</pre>
/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">
<TextView
android:id="@+id/textView"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginTop="120dp"
android:text="Arithmetic Operator"
android:textAlignment="center"
android:textColor="#F60101"
android:textSize="40dp"
android:textStyle="bold"
app:layout constraintEnd toEndOf="parent"
app:layout_constraintHorizontal_bias="1.0"
app:layout_constraintStart toStartOf="parent"
app:layout constraintTop toTopOf="parent" />
<EditText
android:id="@+id/fnum"
android:layout width="match parent"
android:layout height="wrap_content"
android:layout marginTop="16dp"
android:hint="First Number"
android:inputType="number"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
app:layout constraintEnd toEndOf="parent"
app:layout constraintHorizontal bias="1.0"
```

```
app:layout constraintTop toBottomOf="@+id/textView"
/>
<EditText
android:id="@+id/snum"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginTop="16dp"
android:hint="Second Number"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:inputType="number"
app:layout constraintEnd toEndOf="parent"
app:layout constraintStart toStartOf="parent"
app:layout constraintTop toBottomOf="@+id/fnum" />
<TextView
android:id="@+id/res"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginTop="36dp"
android:text="RESULT"
android:textSize="20dp"
android:textStyle="bold"
app:layout constraintEnd toEndOf="@+id/snum"
app:layout constraintHorizontal bias="0.097"
app:layout constraintStart toStartOf="parent"
app:layout constraintTop toBottomOf="@+id/snum" />
<Button
android:id="@+id/btn1"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginStart="48dp"
android:layout marginTop="28dp"
android:text="ADDITION"
app:layout constraintStart toStartOf="parent"
app:layout constraintHorizontal bias="0.097"
app:layout constraintTop toBottomOf="@+id/res" />
<Button
android:id="@+id/btn2"
android:layout_width="wrap_content"
android:layout height="wrap content"
android:layout marginStart="236dp"
android:layout marginTop="28dp"
android:text="SUBSTRACTION"
app:layout constraintStart toStartOf="parent"
app:layout_constraintHorizontal bias="0.097"
app:layout_constraintTop toBottomOf="@+id/res" />
<Button
android:id="@+id/btn3"
android:layout width="wrap content"
android:layout height="wrap content"
```

```
android:layout marginTop="100dp"
      android:layout marginEnd="232dp"
      android:text="MULTIPLICATION"
      app:layout constraintEnd toEndOf="parent"
      app:layout_constraintHorizontal bias="0.097"
      app:layout constraintTop toBottomOf="@+id/res" />
      <Button
      android:id="@+id/btn4"
      android:layout width="wrap content"
      android:layout_height="wrap content"
      android:layout marginTop="100dp"
      android:layout marginEnd="64dp"
      android:text="DIVISION"
      app:layout constraintEnd toEndOf="parent"
      app:layout_constraintHorizontal bias="0.097"
      app:layout_constraintTop_toBottomOf="@+id/res" />
      </androidx.constraintlayout.widget.ConstraintLayout>
Java file
public class MainActivityextends AppCompatActivity{
EditTextfnum;
EditTextsnum;
Button btn1;
Button btn2;
Button btn3;
Button btn4;
TextViewres;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
btn1=(Button) findViewById(R.id.btn1);
btn2=(Button) findViewById(R.id.btn2);
btn3=(Button) findViewById(R.id.btn3);
btn4=(Button) findViewById(R.id.btn4);
fnum= (EditText) findViewById(R.id.fnum);
snum=(EditText) findViewById(R.id.snum);
res=(TextView) findViewById(R.id.res);
btn1.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
int n1 = Integer.parseInt(fnum.getText().toString());
int n2 = Integer.parseInt(snum.getText().toString());
int result = n1+n2;
res.setText(String.valueOf(result));
```

```
});
btn2.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
int n1 = Integer.parseInt(fnum.getText().toString());
int n2 = Integer.parseInt(snum.getText().toString());
int result = n1-n2;
res.setText(String.valueOf(result));
        });
btn3.setOnClickListener(new View.OnClickListener() {
public void onClick(View view) {
int n1 = Integer.parseInt(fnum.getText().toString());
int n2 = Integer.parseInt(snum.getText().toString());
int result = n1*n2;
res.setText(String.valueOf(result));
        });
btn4.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
int n1 = Integer.parseInt(fnum.getText().toString());
int n2 = Integer.parseInt(snum.getText().toString());
int result = n1/n2;
res.setText(String.valueOf(result));
        });
    }
}
```

Q2. Create an Android Application that sends the Notification on click of the button and displays the notification message on the second activity.

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http://schem")</pre>
```

```
as.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">
<TextView
android:id="@+id/textView"
android:layout width="match parent"
android:layout height="wrap_content"
android:layout marginTop="184dp"
android:text="NOTIFICATION"
android:textAlignment="center"
android:textSize="20dp"
android:textStyle="bold"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
app:layout constraintEnd toEndOf="parent"
app:layout constraintHorizontal bias="0.0"
app:layout constraintStart toStartOf="parent"
app:layout constraintTop toTopOf="parent" />
<Button
android:id="@+id/btn"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginTop="280dp"
android:text="NOTIFY"
android:textSize="20dp"
android:textStyle="bold"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
app:layout constraintHorizontal bias="0.0"
app:layout constraintEnd toEndOf="parent"
app:layout constraintTop toBottomOf="@+id/textView"
</androidx.constraintlayout.widget.ConstraintLayout>
Java file
package com.example.notification;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.app.NotificationCompat;
import androidx.core.app.NotificationManagerCompat;
import android.app.Notification;
import android.app.NotificationChannel;
import android.app.NotificationManager;
import android.app.PendingIntent;
```

import android.content.Intent;

import android.content.pm.PackageManager;

```
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.os.Build;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivityextends AppCompatActivityimplements
View.OnClickListener{
final String CHANNEL ID = "Sanju Ki Pathshala";
Button btn;
NotificationManagerCompatnNotificationCompat;
NotificationManagerCompatnNotificationManagerCompat;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
createNotificationChannel();
btn= (Button) findViewById(R.id.btn);
btn.setOnClickListener(this);
nNotificationManagerCompat=
NotificationManagerCompat. from (MainActivity.this);
@Override
public void onClick(View view) {
createNotificationManagerCompat(getString(R.string.app name),
getString(R.string.title), 1);
   }
private void createNotificationManagerCompat(String title, String msg, int
notificationId) {
        title = "Notification Done";
msq = "This is Done Notification";
nNotificationManagerCompat.cancelAll();
Bitmap bitmap= BitmapFactory.decodeResource(getResources(),
R.drawable.baseline notifications active 24);
Intent intent= new Intent(MainActivity.this, Activity2.class);
PendingIntentpendingIntent PendingIntent.getActivity(this, 0, intent, 0);
Notification notification= new NotificationCompat.Builder(this, CHANNEL ID)
                .setSmallIcon(R.drawable.baseline notifications active 24)
                .setContentTitle(title)
                .setContentText(msq)
                .setPriority(NotificationCompat.PRIORITY DEFAULT)
```

```
.setContentIntent(pendingIntent)
                .setAutoCancel(true)
                .build();
if (ActivityCompat.checkSelfPermission(this,
android.Manifest.permission.POST NOTIFICATIONS) !=
PackageManager. PERMISSION GRANTED) {
// TODO: Consider calling
// ActivityCompat#requestPermissions
// here to request the missing permissions, and then overriding
            // public void onRequestPermissionsResult(int requestCode,
String[] permissions,
                                                         int[] grantResults)
            // to handle the case where the user grants the permission. See
the documentation
            // for ActivityCompat#requestPermissions for more details.
return:
nNotificationManagerCompat.notify(notificationId, notification);
private void createNotificationChannel() {
if (Build.VERSION. SDK INT>= Build.VERSION CODES. P) {
CharSequence name = "Sanju Ki Pathshala";
String desc= "This is for VIP";
int imp = NotificationManager.IMPORTANCE DEFAULT;
NotificationChannel Channel = new NotificationChannel(CHANNEL ID, name, imp);
Channel.setDescription(desc);
NotificationManagernotificationManager=
getSystemService(NotificationManager.class);
notificationManager.createNotificationChannel(Channel);
    }
}
create 2<sup>nd</sup> activity activity.xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http://schem</pre>
as.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"
```

```
<TextView
android:id="@+id/txt"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginTop="268dp"
android:text="Demo"
android:textAlignment="center"
android:textSize="30dp"
android:textStyle="bold"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toTopOf="parent"
/>
</androidx.constraintLayout.widget.ConstraintLayout>
```

Java second only create → not write any thing in that

slip5

QlCreate android application to accept two number and find power and Average Display the result on the next activity on Button Click

```
<?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/num1EditText"
       android:layout width="match parent"
       android:layout height="wrap content"
       android:hint="Enter first number"
        android:inputType="numberDecimal"
        android:layout marginBottom="16dp"/>
```

```
<EditText
    android:id="@+id/num2EditText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter second number"
    android:inputType="numberDecimal"
    android:layout_below="@id/num1EditText"
    android:layout_marginBottom="16dp"/>

<Button
    android:id="@+id/calculateButton"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Calculate"
    android:layout_below="@id/num2EditText"/>
```

</LinearLayout>

Java file 1

```
package com.example.slip5powerapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    private EditText num1EditText;
    private EditText num2EditText;
   private Button calculateButton;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        num1EditText = findViewById(R.id.num1EditText);
        num2EditText = findViewById(R.id.num2EditText);
        calculateButton = findViewById(R.id.calculateButton);
        calculateButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                double num1 =
Double.parseDouble(num1EditText.getText().toString());
                double num2 =
```

```
Double.parseDouble(num2EditText.getText().toString());
                double power = Math.pow(num1, num2);
                double average = (num1 + num2) / 2;
                Intent intent = new Intent (MainActivity.this,
ResutlantActivity.class);
                intent.putExtra("power", power);
                intent.putExtra("average", average);
                startActivity(intent);
        });
   }
}
xml file 2
<?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=".ResutlantActivity">
    <TextView
        android:id="@+id/powerTextView"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="Power: "
        android:textSize="20sp"
        android:layout marginBottom="16dp"/>
    <TextView
        android:id="@+id/averageTextView"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="Average: "
        android:textSize="20sp"
        android:layout below="@id/powerTextView"/>
</RelativeLayout>
Java file 2
package com.example.slip5powerapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;
```

```
public class ResutlantActivity extends AppCompatActivity {
    private TextView powerTextView;
   private TextView averageTextView;
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity resutlant);
        powerTextView = findViewById(R.id.powerTextView);
        averageTextView = findViewById(R.id.averageTextView);
        Intent intent = getIntent();
        double power = intent.getDoubleExtra("power", 0);
        double average = intent.getDoubleExtra("average", 0);
        powerTextView.setText("Power: " + String.valueOf(power));
        averageTextView.setText("Average: " + String.valueOf(average));
   }
}
```

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

Xml file

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayoutxmlns: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">

<Button
android:id="@+id/getBtn"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_height="wrap_content"
android:layout_marginLeft="150dp"
android:layout_marginTop="200dp"
android:text="Show Alert" />

</RelativeLayout>
```

Mainactivity.java

```
package com.example.slip5_1;
```

import androidx.appcompat.app.AppCompatActivity;

```
import android.app.AlertDialog;
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
import java.util.ArrayList;
public class MainActivityextends AppCompatActivity{
final CharSequence[] Friend = { "Neha", "Shivani", "Mahek", "Sonal" };
ArrayList<Integer>slist= new ArrayList();
booleanicount[] = new boolean[Friend.length];
String msg="";
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
Button btn= (Button)findViewById(R.id.getBtn);
btn.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);
builder.setTitle("Choose Friends")
             .setMultiChoiceItems(Friend,icount, new DialogInterface.OnMultiChoiceClickListener() {
@Override
public void onClick(DialogInterfacearg0, int arg1, booleanarg2) {
if (arg2) {
// If user select a item then add it in selected items
slist.add(arg1);
                 } else if (slist.contains(arg1)) {
// if the item is already selected then remove it
slist.remove(Integer.valueOf(arg1));
                 }
               }
                  .setCancelable(false)
             .setPositiveButton("Yes", new DialogInterface.OnClickListener() {
@Override
public void onClick(DialogInterfacedialog, int which) {
msg= "";
for (int i = 0; i<slist.size(); i++) {</pre>
```

```
msg = msg + "\n" + (i + 1) + " : " + Friend[slist.get(i)];
Toast.makeText(getApplicationContext(), "Total" + slist.size() + " Items Selected.\n" + msg,
Toast.LENGTH_SHORT).show();
               }
             })
             .setNegativeButton("No", new DialogInterface.OnClickListener() {
public void onClick(DialogInterfacedialog, int which) {
Toast.makeText(MainActivity.this,"No Option Selected",Toast.LENGTH SHORT).show();
               }
             });
//Creating dialog box
AlertDialog dialog = builder.create();
dialog.show();
    });
}
}
```

Slip6 q1 same as slip12 also

Q1 Create a Simple application which send -Hello message from one activity to another with the help of Button (Use Intent)

Xml File 1

```
<?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"</pre>
```

```
tools:context=".MainActivity">
    <EditText
        android:id="@+id/edit text"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:hint="enter here"
        android:inputType="text"/>
    <Button
        android:id="@+id/btn"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="Click here"
        android:layout gravity="center"
        android:layout marginTop="16dp"/>
</LinearLayout>
Java file 1
package com.example.slip12hillapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import java.time.temporal.ValueRange;
public class MainActivity extends AppCompatActivity {
    private static String value;
    public static String getValue() {
        return value;
    }
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
      final EditText edittext= (EditText)findViewById(R.id.edit text);
        Button button= (Button) findViewById(R.id.btn);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                value = edittext.getText().toString().trim();
                Intent intent=new
Intent (MainActivity.this, SecondActivity.class);
                startActivity(intent);
        });
   }
```

XML file 2

```
<?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:gravity="center"
    tools:context=".SecondActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_width="wrap_content"
        android:gravity="center"/>
        </LinearLayout>
```

Java file 2

```
package com.example.slip12hillapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;

public class SecondActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_second);
        TextView textView =findViewById(R.id.text_view);
        textView.setText(MainActivity.getValue());
    }
}
```

Q2 Create Android application that Demostrate ListView And onClick of list Display the Toast

```
</multi-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"</pre>
```

```
android:layout width="match parent"
    android:layout height="match parent"
    android:orientation="vertical"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/message"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:textSize="18sp"
        android:textStyle="bold"
        android:padding="16dp"
        android:text="Click an item to display the selection."/>
    <ListView
        android:id="@+id/list view"
        android:layout width="match parent"
        android:layout height="wrap content"/>
</LinearLayout>
```

Java file

```
package com.example.listviewlapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.TextView;
import android.widget.ListView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
   private ListView listView;
   private TextView message;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        // Get references to the ListView and TextView elements
        listView = findViewById(R.id.list view);
       // message = findViewById(R.id.message);
        // Create an array of items to display in the ListView
        String[] items = {"Item 1", "Item 2", "Item 3", "Item 4", "Item 5"};
        // Create an ArrayAdapter to map the items to the views
        ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
```

```
android.R.layout.simple list item 1, items);
        // Set the adapter on the ListView to display the items
        listView.setAdapter(adapter);
        // Set an OnItemClickListener to display a message when an item is
clicked
        listView.setOnItemClickListener(new AdapterView.OnItemClickListener()
{
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
position, long id) {
                String selectedItem = (String)
parent.getItemAtPosition(position);
                //message.setText("You selected: " + selectedItem);
                Toast.makeText(MainActivity.this, "You have
selected"+selectedItem, Toast.LENGTH SHORT).show();
        });
   }
```

slip7

Q1. Create an Android Application That Demostrate Radio Button

```
<?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">
    <LinearLayout</pre>
        android:layout width="match parent"
        android:layout height="wrap content"
        android:orientation="vertical"
        android:padding="100dp">
    <TextView
        android:layout width="wrap content"
        android:layout height="wrap content"
```

```
android:text="Select your gender:"/>
        <RadioGroup
            android:id="@+id/rg"
            android:layout width="match parent"
            android:layout height="wrap content"
            android:orientation="horizontal">
            <RadioButton
                android:id="@+id/rb1"
                android:layout_width="wrap_content"
                android:layout height="wrap content"
                android:text="male"/>
            <RadioButton
                android:id="@+id/rb2"
                android:layout width="wrap content"
                android:layout height="wrap content"
                android:text="femal"/>
     </RadioGroup>
        <Button
            android:id="@+id/button"
            android:layout width="wrap content"
            android:layout height="wrap content"
            android:text="submit"/>
        </LinearLayout>
</LinearLayout>
javaFile
package com.example.radiobuttonslip7application;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
   private RadioGroup radioGroupGender;
   private RadioButton radioButtonSelected;
   private Button buttonSubmit;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        radioGroupGender=findViewById(R.id.rg);
        buttonSubmit=findViewById(R.id.button);
        buttonSubmit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
```

Q2 Create an Android Application to Demostrate phone call using implicit Intent

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    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: layout gravity="center"
    tools:context=".MainActivity">
    <EditText
       android:id="@+id/edit phone"
       android:layout width="match parent"
       android:layout height="wrap_content"
       android:hint="Phone Number"
       android:layout_marginLeft="30dp"
        android:layout marginRight="30dp"
        android:inputType="number"
        android:gravity="center" />
   <Button
        android:id="@+id/btn Dial"
        android:layout width="wrap content"
       android:layout height="wrap content"
       android:text="Call"
       android:backgroundTint="#DEDBDB"
       android:layout marginLeft="50dp"
        android:layout marginRight="50dp"
```

```
android:layout_marginTop="20dp"
android:layout gravity="center"/>
```

</LinearLayout>

Java file

```
package com.example.phonecallslip7application;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    Button btnDial;
   EditText edtPhone;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        edtPhone=findViewById(R.id.edit phone);
        btnDial=findViewById(R.id. btn Dial);
        btnDial.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String phoneNumber =edtPhone.getText().toString();
                Intent iDial= new
Intent(Intent.ACTION DIAL, Uri.fromParts("tel", phoneNumber, null));
                startActivity(iDial);
        });
    }
```

Slip8

Q1 create an android application with login Screen. On successful login, give message go to next Activity(Without Using Database and use Table layout)

```
<?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"
    tools:context=".MainActivity">
    <TableRow
        android:layout width="match parent"
        android:layout height="match parent">
        <TextView
            android:id="@+id/textview"
            android:layout width="wrap content"
            android:layout height="wrap content"
            android:text="Username"/>
    <EditText
        android:id="@+id/edittext1"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:ems="10"
        android:inputType="text"/>
    </TableRow>
    <TableRow
        android:layout width="match parent"
        android:layout height="match parent">
    <TextView
    android:id="@+id/textview2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Password"/>
    <EditText
        android:id="@+id/edittext2"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:ems="10"
        android:inputType="text"/>
    </TableRow>
    <Button
        android:id="@+id/button1"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="login"/>
    <Button
        android:id="@+id/button2"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="cancle"/>
</TableLayout>
```

```
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity implements
View.OnClickListener {
    EditText username;
    EditText password;
    Button login;
    Button cancle;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        username=(EditText) findViewById(R.id.edittext1);
        password=(EditText) findViewById(R.id.edittext2);
        login=(Button)findViewById(R.id.button1);
        cancle=(Button) findViewById(R.id.button2);
        login.setOnClickListener(this);
        cancle.setOnClickListener(this);
    }
    @Override
    public void onClick(View view) {
        String na=username.getText().toString();
        String pa=password.getText().toString();
        switch (view.getId())
            case R.id.button1:
                if (na.equals("chaitu") &&pa.equals("admin")) {
                    Intent i=new Intent(this, SecondActivity.class);
                    i.putExtra("c1",na);
                    startActivity(i);
                }
                else
                    Toast.makeText(this, "check #username or
#password", Toast.LENGTH LONG) .show();
                }
                break;
            case R.id.button2:
                username.setText("");
                password.setText("");
```

```
break:
            default:
                break;
   }
}
xml file 2
<?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"
    android:orientation="vertical"
    tools:context=".SecondActivity">
    <TextView
        android:id="@+id/text1"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout centerHorizontal="true"
        android:layout centerVertical="true"
        tools:content=".SecondActivity"/>
    <Button
        android:id="@+id/btn1"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="Logout"/>
</RelativeLayout>
Javafile 2
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class SecondActivity extends AppCompatActivity implements
View.OnClickListener {
   Button Logout;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
setContentView(R.layout.activity second);
    Intent i=getIntent();
    String str=i.getStringExtra("c1");
    TextView t1=(TextView) findViewById(R.id.text1);
    t1.setText("Logged In Sucessfully!"+str);
    Logout=(Button) findViewById(R.id.btn1);
    Logout.setOnClickListener(this);
}
@Override
public void onClick(View view1) {
    switch (view1.getId())
        case R.id.btn1:
            Intent i=new Intent(this, MainActivity.class);
            startActivity(i);
            finish();
            System.exit(0);
            break;
        default:
            break;
}
```

Q2 Create application to send email with attachment.

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout</pre>
   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="10dp"
   tools:context=".MainActivity">
    <TextView
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="To:"
        android:textAppearance="@style/TextAppearance.AppCompat.Large"/>
    <EditText
        android:id="@+id/edit text to"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:inputType="textEmailAddress"/>
    <TextView
        android:layout width="match parent"
```

```
android:layout height="wrap content"
        android:text="Subject:"
        android:textAppearance="@style/TextAppearance.AppCompat.Large"/>
    <EditText
        android:id="@+id/edit text subject"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:inputType="textEmailSubject"/>
    <TextView
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="Message"
        android:textAppearance="@style/TextAppearance.AppCompat.Large"/>
    <EditText
        android:id="@+id/edit text message"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:lines="10"
        android:gravity="start|top"/>
    <Button
        android:id="@+id/button send"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="send"/>
</LinearLayout>
Java file
package com.example.emailsendapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    private EditText mEditTextTo;
   private EditText mEditTextSubject;
   private EditText mEditTextMessage;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        mEditTextTo=findViewById(R.id.edit text to);
```

```
mEditTextSubject=findViewById(R.id.edit text subject);
       mEditTextMessage=findViewById(R.id.edit text message);
       Button buttonSend = findViewById(R.id.button send);
       buttonSend.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                sendMail();
        });
   private void sendMail(){
        String recipientList=mEditTextTo.getText().toString();
        String[] recipients = recipientList.split(",");
        //example@gmail.com, example2@gmail.com
        String subject =mEditTextSubject.getText().toString();
        String message =mEditTextMessage.getText().toString();
        //here now important part start here
        Intent intent = new Intent(Intent.ACTION SEND);
        intent.putExtra(Intent.EXTRA EMAIL, recipients);
       intent.putExtra(Intent.EXTRA SUBJECT, subject);
        intent.putExtra(Intent.EXTRA TEXT, message);
        //here email client
        intent.setType("message/rfc822");
        startActivity(Intent.createChooser(intent,"Choose an email client"));
       //this below part for attachment
       // Uri attachmentUri =
Uri.parse("file:///storage/emulated/0/Download/myfile.pdf");
       // intent.putExtra(Intent.EXTRA STREAM, attachmentUri);
       //startActivity(Intent.createChooser(intent, "Send email..."));
   }
}
```

slip9

Slip-9 Question 1

Write an android application to accept two numbers from the user and display them and reject input if both numbers are greater than 10 and ask for two new numbers.

Xml file

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/andro
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">
<EditText
android:layout width="match parent"
android:layout height="wrap content"
android:hint="Enter first number"
android:inputType="number" />
<EditText
android:id="@+id/second number edittext"
android:layout width="match parent"
android:layout height="wrap content"
android:hint="Enter second number"
android:inputType="number" />
<Button
android:id="@+id/submit button"
android:layout width="match parent"
android:layout height="wrap content"
android:text="Submit" />
<TextView
android:id="@+id/result textview"
android:layout width="match parent"
android:layout height="wrap content"
android:paddingTop="16dp" />
```

```
package com.example.slip91;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends
AppCompatActivity {
private EditText firstNumberEditText;
    private EditText secondNumberEditText;
    private Button submitButton;
    private TextView resultTextView;
@Override
protected void onCreate (Bundle
savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
firstNumberEditText =
findViewById(R.id.first number edittext);
secondNumberEditText =
findViewById(R.id.second number edittext);
submitButton = findViewById(R.id.submit button);
```

```
resultTextView =
findViewById(R.id.result textview);
submitButton.setOnClickListener(new
View.OnClickListener() {
@Override
public void onClick(View view) {
                String firstNumberString =
firstNumberEditText.getText().toString();
String secondNumberString =
secondNumberEditText.getText().toString();
                if (firstNumberString.isEmpty()
|| secondNumberString.isEmpty()) {
Toast.makeText(MainActivity.this, "Please enter
two numbers", Toast. LENGTH SHORT) . show();
int firstNumber =
Integer.parseInt(firstNumberString);
                int secondNumber =
Integer.parseInt(secondNumberString);
                if (firstNumber >10 &&
secondNumber >10) {
Toast.makeText(MainActivity.this, "Both numbers
Toast. LENGTH SHORT) . show();
firstNumberEditText.getText().clear();
secondNumberEditText.getText().clear();
                    return;
```

```
String resultString = "First
number: " + firstNumber + "\n" + "Second number:
" + secondNumber;
resultTextView.setText(resultString);
}
});
}
```

Slip10

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

Xml file

Xml file

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayoutxmlns:android="http://schemas.android.com/apk/res/android"</pre>
xmlns:tools="http://schemas.android.com/tools"
android:layout width="match parent"
android:layout height="match_parent"
android:padding="16dp"
tools:context=".MainActivity">
android:id="@+id/switchButton"
android:layout width="wrap content"
android:layout height="wrap content"
android:text="Switch"
android:checked="false"
android:layout marginBottom="100dp"
android:layout centerHorizontal="true"/>
<ToggleButton
android:id="@+id/toggleButton"
```

```
android:layout width="wrap content"
android:layout height="wrap content"
android:textOn="On"
android:textOff="Off"
android:checked="false"
android:layout below="@id/switchButton"
android:layout centerHorizontal="true"/>
</RelativeLayout>
Java file
package com.example.slip10 1;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CompoundButton;
import android.widget.Switch;
import android.widget.Toast;
import android.widget.ToggleButton;
public class MainActivityextends AppCompatActivity{
private Switch switchButton;
private ToggleButtontoggleButton;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
switchButton= findViewById(R.id.switchButton);
toggleButton= findViewById(R.id.toggleButton);
switchButton.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
@Override
public void onCheckedChanged(CompoundButtonbuttonView, booleanisChecked) {
if (isChecked) {
// Switch is on
Toast.makeText(MainActivity.this, "Switch is on", Toast.LENGTH SHORT).show();
                } else {
// Switch is off
Toast.makeText (MainActivity.this, "Switch is off",
Toast.LENGTH SHORT).show();
               }
            }
        });
toggleButton.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
@Override
public void onCheckedChanged(CompoundButtonbuttonView, booleanisChecked) {
if (isChecked) {
// Toggle button is on
Toast.makeText (MainActivity.this, "Toggle button is on",
Toast.LENGTH SHORT) .show();
```

Q2 Demostrate Array Adapter using List View to Display list of fruits

Xml file

```
<?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=".MainActivity">
    <LinearLayout</pre>
        android:layout width="match parent"
        android:layout height="match parent"
        android:orientation="vertical">
        <ListView
            android:id="@+id/fruit list"
            android:layout width="wrap content"
            android:layout height="wrap content"/>
</LinearLayout>
</LinearLayout>
```

```
package com.example.slip10application;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.ListView;
```

```
public class MainActivity extends AppCompatActivity {
    String[]
fruitArray={"Apple", "mango", "Banana", "Blackberry", "Pinaple", "strawbery"};

@Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ArrayAdapter adapter=new ArrayAdapter<String>(this,
androidx.appcompat.R.layout.support_simple_spinner_dropdown_item, fruitArray);
        ListView listView=(ListView) findViewById(R.id.fruit_list);
        listView.setAdapter(adapter);
}
```

slip11

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

Neha Xml file

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.com/apk/res/andro
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:layout alignParentEnd="true"
android:layout alignParentStart="true"
tools:context=".MainActivity"
android:layout alignParentRight="true"
android:layout alignParentLeft="true">
<TextView
android:id="@+id/myTextView"
android:layout width="wrap content"
android:layout height="wrap content"
```

```
android:text="Hello World!"
android:textSize="20sp"
android:textColor="#000000"
android:typeface="sans"
android:layout centerInParent="true"/>
<Button
android:id="@+id/increaseSizeButton"
android:layout width="wrap content"
android:layout height="wrap content"
android:text="Increase Size"
android:layout below="@+id/myTextView"
android:layout alignParentStart="true"
android:layout alignParentLeft="true" />
<Button
android:id="@+id/decreaseSizeButton"
android:layout width="wrap content"
android:layout height="wrap content"
android:text="Decrease Size"
android:layout below="@+id/myTextView"
android:layout alignParentEnd="true"
android:layout alignParentRight="true" />
<Button
android:id="@+id/changeColorButton"
android:layout width="wrap content"
android:layout height="wrap content"
android:text="Change Color"
android:layout below="@+id/increaseSizeButton"
android:layout alignParentStart="true"
android:layout alignParentLeft="true" />
<Button
android:id="@+id/changeFontButton"
android:layout width="wrap content"
android:layout height="wrap content"
android:text="Change Font"
android:layout below="@+id/increaseSizeButton"
android:layout alignParentEnd="true"
```

```
android:layout_alignParentRight="true" />
</RelativeLayout>
```

```
package com.example.slip9 1;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Color;
import android.graphics.Typeface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
private TextView textView;
    private Button increaseSizeButton;
    private Button decreaseSizeButton;
    private Button changeColorButton;
    private Button changeFontButton;
    private int fontSize = 20;
    private int textColor = Color.BLACK;
    private String fontFamily = "sans-serif";
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
textView = findViewById(R.id.myTextView);
increaseSizeButton =
findViewById(R.id.increaseSizeButton);
decreaseSizeButton =
findViewById(R.id.decreaseSizeButton);
```

```
changeColorButton =
findViewById(R.id.changeColorButton);
changeFontButton = findViewById(R.id.changeFontButton);
textView.setTextSize(fontSize);
textView.setTextColor(textColor);
textView.setTypeface(Typeface.create(fontFamily,
Typeface.NORMAL));
increaseSizeButton.setOnClickListener(new
View.OnClickListener() {
@Override
public void onClick(View view) {
fontSize += 2;
textView.setTextSize(fontSize);
decreaseSizeButton.setOnClickListener(new
View.OnClickListener() {
@Override
public void onClick(View view) {
if (fontSize >2) {
fontSize -= 2;
textView.setTextSize(fontSize);
changeColorButton.setOnClickListener (new
View.OnClickListener() {
@Override
public void onClick(View view) {
textColor = Color.RED;
textView.setTextColor(textColor);
```

```
changeFontButton.setOnClickListener(new
View.OnClickListener() {

@Override
public void onClick(View view) {

fontFamily = "monospace";
textView.setTypeface(Typeface.create(fontFamily,
Typeface.NORMAL));
}

});
}
}
```

OR mam

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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"
android:background="@color/colorAccent">
<TextView
android:layout width="wrap content"
android:layout height="wrap content"
android:text="Hello TYBCA!"
android: fontFamily="cursive"
android:textSize="70dp"
app:layout constraintBottom toBottomOf="parent"
app:layout constraintLeft toLeftOf="parent"
app:layout constraintRight toRightOf="parent"
app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Q2. Create android 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 whenever click on the Submit button Xml file 1

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout</pre>
    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/fname"
          android:layout width="match parent"
       android:layout height="wrap content"
       android:layout gravity="center"
      android:hint="Enter stud first name"
       android:inputType="text"/>
    <EditText
       android:id="@+id/mname"
       android:layout width="match parent"
        android:layout height="wrap content"
       android:layout gravity="center"
       android:hint="Enter stud middle name"
       android:text="stud last name"
       android:inputType="text"/>
        <EditText
        android:id="@+id/lname"
           android:layout width="match parent"
           android:layout height="wrap content"
           android:layout gravity="center"
            android:hint="Enter last name"
             android:inputType="text"/>
    <EditText
        android:id="@+id/birth date"
        android:layout_width="match_parent"
        android:layout height="wrap content"
       android:layout gravity="center"
        android:hint="Enter date of birth "
        android:inputType="text"/>
    <EditText
        android:id="@+id/address"
       android:layout width="match parent"
       android:layout height="wrap content"
       android:layout gravity="center"
        android:hint="Enter address"
       android:inputType="text"/>
    <EditText
        android:id="@+id/email id"
        android:layout width="match parent"
```

```
package com.example.slip11studapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        final EditText editText1= findViewById(R.id.fname);
        final EditText editText2=findViewById(R.id.mname);
        final EditText editText3=findViewById(R.id.lname);
        final EditText editText4=findViewById(R.id.birth date);
        final EditText editText5=findViewById(R.id.address);
        final EditText editText6=findViewById(R.id.email id);
         Button button1=findViewById(R.id.button);
         button1.setOnClickListener(new View.OnClickListener() {
             @Override
             public void onClick(View view) {
                 String name =editText1.getText().toString().trim();
                 String releseyr=editText2.getText().toString().trim();
                 String collection=editText3.getText().toString().trim();
                 String dob=editText4.getText().toString().trim();
                 String saddress=editText5.getText().toString().trim();
                 String emailid=editText6.getText().toString().trim();
                 Bundle bundle = new Bundle();
                 bundle.putString("value1", name);
```

```
bundle.putString("value2", releseyr);
bundle.putString("value3", collection);
bundle.putString("value4", dob);
bundle.putString("value5", saddress);
bundle.putString("value6", emailid);

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

Xml file2

```
<?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=".SecondActivity">
    <TextView
       android:id="@+id/text fname"
        android:layout width="wrap content"
        android:layout height="wrap content"
       android:layout gravity="center"
        />
    <TextView
        android:id="@+id/text mname"
        android:layout width="wrap content"
        android:layout height="wrap content"
       android:layout gravity="center"
        />
    <TextView
       android:id="@+id/text lname"
       android:layout width="wrap content"
       android:layout height="wrap content"
        android:layout gravity="center"
        />
    <TextView
        android:id="@+id/text birth date"
```

```
android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout gravity="center"
        />
    <TextView
        android:id="@+id/text address"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout gravity="center"
    <TextView
        android:id="@+id/text emailid"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout gravity="center"
        />
</LinearLayout>
```

```
package com.example.slip11studapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;
public class SecondActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity second);
        Bundle bundle =getIntent().getExtras();
        if (bundle!=null) {
            String value1 =bundle.getString("value1");
            String value2 =bundle.getString("value2");
            String value3 = bundle.getString("value3");
            String value4 = bundle.getString("value4");
            String value5 = bundle.getString("value5");
            String value6 = bundle.getString("value6");
            TextView textView1=findViewById(R.id.text fname);
            TextView textView2=findViewById(R.id.text mname);
            TextView textView3=findViewById(R.id.text lname);
            TextView textView4=findViewById(R.id.text birth date);
            TextView textView5=findViewById(R.id.text address);
            TextView textView6=findViewById(R.id.text emailid);
            textView1.setText(value1);
```

```
textView2.setText(value2);
textView3.setText(value3);
textView4.setText(value4);
textView5.setText(value5);
textView6.setText(value6);
}
}
}
```

Slip12

Q1 create a simple application which sends -hii message from one activity to another with help of button

Xml file 1

```
<?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/edit text"
       android:layout width="match parent"
       android:layout height="wrap content"
       android:layout gravity="center"
       android:inputType="text"/>
    <Button
        android:id="@+id/btn"
        android:layout width="wrap content"
       android:layout height="wrap content"
       android:text="Click here"
       android:layout gravity="center"
        android:layout marginTop="16dp"/>
```

</LinearLayout>

```
package com.example.slip12hillapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
```

```
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import java.time.temporal.ValueRange;
public class MainActivity extends AppCompatActivity {
    private static String value;
   public static String getValue() {
       return value;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
      final EditText edittext= (EditText)findViewById(R.id.edit text);
        Button button= (Button) findViewById(R.id.btn);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                value = edittext.getText().toString().trim();
                Intent intent=new
Intent(MainActivity.this, SecondActivity.class);
                startActivity(intent);
        });
xml file 2
<?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=".SecondActivity">
    <TextView
        android:id="@+id/text view"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:layout gravity="center"/>
</LinearLayout>
```

```
package com.example.slip12hillapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;
public class SecondActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_second);
        TextView textView =findViewById(R.id.text_view);
        textView.setText(MainActivity.getValue());
    }
```

Slip13
Q1Create a folloeing vertical scroll view
in android
Xml file

Here take linear layout and orientation vertical and button garavity remove by defalult left

Xml file

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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">
    <ScrollView
        android:layout width="match parent"
        android:layout height="match parent">
        <LinearLayout</pre>
            android:layout width="match parent"
            android:layout height="wrap content"
            android:orientation="vertical">
            <Button
                android:layout_width="wrap content"
                android:layout height="wrap content"
```

```
android:layout gravity="center"
    android:text="Button 1" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 2" />
<But.ton
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 3" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 4" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 5" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 6" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 7" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 10" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 8" />
<Button
   android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 9" />
```

```
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 11" />
   android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 12" />
<Button
   android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 13" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 14" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 15" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 16" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 17" />
<But.ton
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 18" />
<Button
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:text="Button 19" />
    android:layout width="wrap content"
    android:layout height="wrap content"
```

</androidx.constraintlayout.widget.ConstraintLayout>

Java file → don not do anything in java

```
package com.example.slip13application;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

Slip14

Q1. Create simple application which shows life cycle of Activity. (use log)

```
package com.example.tybca;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.os.Bundle;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
String tag="Events";
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
Log.d(tag,"in on create event");
//Displaying Toast with Hello Javatpoint message
Toast.makeText(getApplicationContext(),"Hello TYBCA
```

```
Student", Toast.LENGTH SHORT) .show();
}
@Override
public void onStart() {
super.onStart();
Log.d(tag,"in on start event");
@Override
public void onStop() {
super.onStop();
Log.d(tag,"in on stop event");
@Override
protected void onResume() {
super.onResume();
Log. d(tag, "in on resume event");
@Override
public void onPause() {
super.onPause();
Log. d(tag, "in on pause event");
}
@Override
protected void onDestroy() {
super.onDestroy();
Log. d(tag, "in on Destroy event");
}
```

Q2 Create An android aaplication to send email Xml file

```
<?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="10dp"
    tools:context=".MainActivity">
   <TextView
        android:layout width="match parent"
        android:layout height="wrap content"
       android:text="To:"
       android:textAppearance="@style/TextAppearance.AppCompat.Large"/>
        android:id="@+id/edit text to"
        android:layout width="match parent"
```

```
android:layout height="wrap content"
        android:inputType="textEmailAddress"/>
    <TextView
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="Subject:"
        android:textAppearance="@style/TextAppearance.AppCompat.Large"/>
    <EditText
        android:id="@+id/edit text subject"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:inputType="textEmailSubject"/>
    <TextView
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="Message"
        android:textAppearance="@style/TextAppearance.AppCompat.Large"/>
    <EditText
        android:id="@+id/edit text message"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:lines="10"
        android:gravity="start|top"/>
    <Button
        android:id="@+id/button send"
        android:layout_width="wrap_content"
        android:layout height="wrap content"
        android:text="send"/>
</LinearLayout>
Java file
package com.example.emailsendapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    private EditText mEditTextTo;
   private EditText mEditTextSubject;
    private EditText mEditTextMessage;
```

```
@Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
       mEditTextTo=findViewById(R.id.edit text to);
       mEditTextSubject=findViewById(R.id.edit text subject);
       mEditTextMessage=findViewById(R.id.edit text message);
        Button buttonSend = findViewById(R.id.button send);
       buttonSend.setOnClickListener(new View.OnClickListener() {
           @Override
           public void onClick(View view) {
                sendMail();
        });
   private void sendMail(){
        String recipientList=mEditTextTo.getText().toString();
        String[] recipients =recipientList.split(",");
        //example@gmail.com, example2@gmail.com
        String subject =mEditTextSubject.getText().toString();
        String message =mEditTextMessage.getText().toString();
        //here now important part start here
        Intent intent = new Intent(Intent.ACTION SEND);
        intent.putExtra(Intent.EXTRA EMAIL, recipients);
        intent.putExtra(Intent.EXTRA SUBJECT, subject);
        intent.putExtra(Intent.EXTRA TEXT, message);
        //here email client
        intent.setType("message/rfc822");
        startActivity(Intent.createChooser(intent,"Choose an email client"));
       //this below part for attachment
       // Uri attachmentUri =
Uri.parse("file:///storage/emulated/0/Download/myfile.pdf");
       // intent.putExtra(Intent.EXTRA STREAM, attachmentUri);
       //startActivity(Intent.createChooser(intent, "Send email..."));
   }
}
```

```
-→Border xml file
Create->go in drawavble->rightclick->drawable resource
file give name-> next->the set this
Border.xml
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
<stroke
   android:width="30dp"
    android:color="#ffffff">
</stroke>
</shape>
Main xml File
<?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"
    android:background="#000000"
    android:padding="10dp"
    tools:context=".MainActivity">
    <LinearLayout
       android:layout width="match parent"
       android:layout height="match parent"
       android:background="@drawable/border"
       android:orientation="vertical">
        <TextView
           android:id="@+id/text1"
           android:layout width="fill parent"
           android:layout height="fill parent"
           android:background="#A00000FF"
           android:gravity="center vertical|center horizontal"
           android:text="Hello World!"
           android:textColor="#ffffff"
           android:textSize="40sp"/>
    </LinearLayout>
```

Java file in java not wirte code

</RelativeLayout>

```
package com.example.slip15bapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

Q2 Create first activity to accept information like Employee Fisrt name Middle name Last name, salary, Address , Email Id and display all information on Second activity where user click on Submit button

Xml file 1

```
<?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/efname"
       android:layout width="match parent"
       android:layout height="wrap content"
       android:layout gravity="center"
       android:hint="Enter employee first name"
       android:inputType="text"/>
    <EditText
       android:id="@+id/emname"
       android:layout width="match parent"
       android:layout height="wrap content"
       android:layout gravity="center"
        android:hint="Enter employee middle name"
```

```
android:inputType="text"/>
        <EditText
         android:id="@+id/elname"
         android:layout width="match parent"
         android:layout height="wrap content"
         android:layout gravity="center"
         android:hint="Enter employee last name"
         android:inputType="text"/>
    <EditText
        android:id="@+id/esalary"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:hint="Enter employee salary"
        android:inputType="text"/>
    <EditText
        android:id="@+id/eaddress"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:hint="Enter employee address"
        android:inputType="text"/>
    <EditText
        android:id="@+id/eemail"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:hint="Enter employee email"
        android:inputType="text"/>
    <Button
        android:id="@+id/button"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="next"/>
</LinearLayout>
```

```
package com.example.slip15employeeapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
```

```
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        final EditText editText1= findViewById(R.id.efname);
        final EditText editText2=findViewById(R.id.emname);
        final EditText editText3=findViewById(R.id.elname);
        final EditText editText4=findViewById(R.id.esalary);
        final EditText editText5=findViewById(R.id.eaddress);
        final EditText editText6=findViewById(R.id.eemail);
        Button button1=findViewById(R.id.button);
        button1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String name1 =editText1.getText().toString().trim();
                String name2=editText2.getText().toString().trim();
                String name3=editText3.getText().toString().trim();
                String sal=editText4.getText().toString().trim();
                String add=editText5.getText().toString().trim();
                String email=editText6.getText().toString().trim();
                Bundle bundle = new Bundle();
                bundle.putString("value1", name1);
                bundle.putString("value2", name2);
                bundle.putString("value3", name3);
                bundle.putString("value4", sal);
                bundle.putString("value5", add);
                bundle.putString("value6", email);
                Intent intent = new Intent (MainActivity.this,
SecondActivity.class);
                intent.putExtras(bundle);
                startActivity(intent);
        });
```

xml file 2

```
<?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"</pre>
```

```
android:layout width="match parent"
android:layout height="match parent"
android:orientation="vertical"
tools:context=".SecondActivity">
<TextView
   android:id="@+id/text efname"
   android:layout width="wrap content"
   android:layout height="wrap content"
    android:layout gravity="center"
    />
<TextView
   android:id="@+id/text emname"
   android:layout width="wrap content"
   android:layout height="wrap content"
    android:layout gravity="center"
   />
<TextView
   android:id="@+id/text elname"
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:layout gravity="center"
   />
<TextView
   android:id="@+id/text esal"
   android:layout width="wrap content"
   android:layout height="wrap content"
    android:layout gravity="center"
    />
<TextView
   android:id="@+id/text eadd"
    android:layout width="wrap content"
   android:layout height="wrap content"
   android:layout gravity="center"
    />
<TextView
   android:id="@+id/text eemail"
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:layout gravity="center"
    />
```

</LinearLayout>

Java file 2

package com.example.slip15employeeapplication; import androidx.appcompat.app.AppCompatActivity;

```
import android.os.Bundle;
import android.widget.TextView;
public class SecondActivity extends AppCompatActivity {
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity second);
        Bundle bundle =getIntent().getExtras();
        if (bundle!=null) {
            String value1 =bundle.getString("value1");
            String value2 =bundle.getString("value2");
            String value3 = bundle.getString("value3");
            String value4 = bundle.getString("value4");
            String value5 = bundle.getString("value5");
            String value6 = bundle.getString("value6");
            TextView textView1=findViewById(R.id.text efname);
            TextView textView2=findViewById(R.id.text emname);
            TextView textView3=findViewById(R.id.text elname);
            TextView textView4=findViewById(R.id.text esal);
            TextView textView5=findViewById(R.id.text eadd);
            TextView textView6=findViewById(R.id.text eemail);
            textView1.setText(value1);
            textView2.setText(value2);
            textView3.setText(value3);
            textView4.setText(value4);
            textView5.setText(value5);
            textView6.setText(value6);
   }
```

SLIP16

Q1.

Q2.Crea an Android application Ap [p it reads the Student Detail (Name Surname, Class, Gender, Hobbies, Marks) display the all information in another activity in table format on click of submit button

Xml file1 <LinearLayout>

```
<EditText
android:id="@+id/txtname"
android:layout_width="match_parent"
android:layout_height="wrap_content"</pre>
```

```
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Enter Name"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txtsurname"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Enter SurName"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txtclass"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Enter Classname"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txtGender"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Gender"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txthobbies"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:hint="Enter Hobbies"
android:layout marginTop="20dp"/>
<EditText
android:id="@+id/txtmarks"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginLeft="30dp"
android:layout marginRight="30dp"
android:inputType="number"
android:hint="Enter Marks"
android:layout marginTop="20dp"/>
<Button
android:id="@+id/btnsubmit"
android:layout width="match parent"
android:layout height="wrap content"
android:layout marginTop="50dp"
```

```
android:text="Submit"
android:layout_marginLeft="50dp"
android:layout_marginRight="50dp"/>
```

</LinearLayout>

Java file 1

```
Public class MainActivityextends AppCompatActivity{
EditTexttxtname, txtsurname, txtclass, txtGender, txthobbies, txtmarks;
Button btnsubmit;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
txtname=(EditText) findViewById(R.id.txtname);
txtsurname=(EditText) findViewById(R.id.txtsurname);
txtclass public = (EditText) findViewById(R.id.txtclass);
txtGender=(EditText) findViewById(R.id.txtGender);
txthobbies=(EditText) findViewById(R.id.txthobbies);
txtmarks=(EditText) findViewById(R.id.txtmarks);
btnsubmit=(Button) findViewById(R.id.btnsubmit);
btnsubmit.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
String name=txtname.getText().toString().trim();
String surname=txtsurname.getText().toString().trim();
String classes=txtclass.getText().toString().trim();
String Gender=txtGender.getText().toString().trim();
String hobbies=txthobbies.getText().toString().trim();
String marks=txtmarks.getText().toString().trim();//fetching data
Bundle bundle=new Bundle(); //bundle import..... variable careate
        //bundle variable use...
bundle.putString("name", name); //key and where stroed name
bundle.putString("surname", surname);
bundle.putString("classes", classes);
bundle.putString("Gender", Gender);
bundle.putString("hobbies", hobbies);
bundle.putString("marks", marks);
//new intent open karnahai
Intent intent=new Intent(MainActivity.this, MainActivity2.class);
intent.putExtras(bundle);
startActivity(intent);
});
}
```

Xml file2 <TableLayout>

```
<TableRow
android:layout marginTop="300dp"
android:layout marginLeft="40dp"
android:layout marginRight="40dp">
<TextView
android:id="@+id/txt name"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="30dp"
android:layout marginLeft="40dp"
android:text="Hello"
android:textAlignment="center"/>
<TextView
android:id="@+id/txt surname"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"/>
</TableRow>
<TableRow
android:layout marginTop="30dp"
android:layout marginLeft="40dp"
android:layout marginRight="40dp">
<TextView
android:id="@+id/txt classname"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"
/>
<TextView
android:id="@+id/txt Gender"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"/>
</TableRow>
<TableRow
android:layout marginTop="30dp"
android:layout marginLeft="40dp"
android:layout marginRight="40dp">
<TextView
android:id="@+id/txt hobbies"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"/>
```

<TextView

```
android:id="@+id/txt marks"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout marginRight="40dp"
android:layout marginLeft="40dp"
android:text="Hello"/>
</TableRow>
</TableLayout>
Java file 2
TextViewtxt name, txt surname, txt classname, txt Gender, txt hobbies, txt marks;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main2);
Bundle bundle=getIntent().getExtras();
txt name= (TextView) findViewById(R.id.txt name);
txt surname=(TextView) findViewById(R.id.txt surname);
txt classname=(TextView) findViewById(R.id.txt classname);
txt Gender=(TextView) findViewById(R.id.txt Gender);
txt hobbies=(TextView) findViewById(R.id.txt hobbies);
txt marks=(TextView) findViewById(R.id.txt marks);
if( bundle != null)
String name = bundle.getString("name");
String surname = bundle.getString("surname");
String classes = bundle.getString("classes");
String Gender = bundle.getString("Gender");
String hobbies = bundle.getString("hobbies");
String marks = bundle.getString("marks");
txt name.setText(name);
txt surname.setText(surname);
txt classname.setText(classes);
txt Gender.setText(Gender);
txt hobbies.setText(hobbies);
txt marks.setText(marks);
   }
}
```

Q2 .Create an android application that demonstrate TimePicker and display selected time on TextView.

1)Xml file

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.com/apk/res/andro
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">
<TimePicker
android:layout width="wrap content"
android:layout height="wrap content"
android:id="@+id/timepicker">
</TimePicker>
<TextView
android:layout width="wrap content"
android:layout height="wrap content"
android:layout centerInParent="true"
android:layout below="@+id/timepicker"
android:id="@+id/time">
</TextView>
</RelativeLayout>
```

```
package com.example.slip16_2;
import androidx.appcompat.app.AppCompatActivity;
import android.annotation.SuppressLint;
import android.os.Bundle;
```

```
import android.widget.TextView;
import android.widget.TimePicker;
public class MainActivity extends AppCompatActivity {
  TimePicker timePicker;
TextView textView;
@SuppressLint("MissingInflatedId")
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
timePicker=findViewById(R.id.timepicker);
textView=findViewById(R.id.time);
timePicker.setOnTimeChangedListener(new
TimePicker.OnTimeChangedListener() {
@Override
public void onTimeChanged (TimePicker timePicker, int i,
int i1) {
textView.setText(i+":"+i1);
```

Slip 17

Q1 Write an android code to make phone call using intent

```
Xml file
```

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/andro
id"
    xmlns:app="http://schemas.android.com/apk/res-auto"</pre>
```

```
xmlns:tools="http://schemas.android.com/tools"
 android:layout width="match parent"
 android:layout height="match parent"
 android:orientation="vertical"
 android:layout gravity="center"
tools:context=".MainActivity">
<EditText
   android:id="@+id/edit phone"
   android:layout width="match parent"
   android:layout height="wrap content"
   android:hint="Phone Number"
   android:layout marginLeft="30dp"
   android:layout marginRight="30dp"
   android:inputType="number"
   android:gravity="center" />
<Button
   android:id="@+id/btn Dial"
   android:layout width="wrap content"
   android:layout height="wrap content"
   android:text="Call"
   android:backgroundTint="#DEDBDB"
   android:layout marginLeft="50dp"
   android:layout marginRight="50dp"
   android:layout marginTop="20dp"
   android:layout gravity="center"/>
```

</LinearLayout>

```
package com.example.phonecallslip7application;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
   Button btnDial;
   EditText edtPhone;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        edtPhone=findViewById(R.id.edit phone);
```

```
btnDial=findViewById(R.id. btn_Dial);
btnDial.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String phoneNumber =edtPhone.getText().toString();
        Intent iDial= new
Intent(Intent.ACTION_DIAL,Uri.fromParts("tel",phoneNumber,null));
        startActivity(iDial);
    }
});
}
```

Q2 Construct an android Application to accept a number and calculate Factorial and sum of Digit of a give number using Context Menu

Xml File

```
<?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/number edit text"
        android:layout width="match parent"
        android:layout height="wrap content"
       android:hint="Enter a number" />
    <TextView
       android:id="@+id/factorial text view"
       android:layout width="match parent"
       android:layout height="wrap content"
       android:text="Factorial: " />
    <TextView
        android:id="@+id/sum of digits text view"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="Sum of Digits: " />
```

```
package com.example.myapplication;
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.EditText;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
   private EditText numberEditText;
   private TextView factorialTextView;
   private TextView sumOfDigitsTextView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        numberEditText = findViewById(R.id.number edit text);
        factorialTextView = findViewById(R.id.factorial text view);
        sumOfDigitsTextView = findViewById(R.id.sum of digits text view);
        registerForContextMenu(numberEditText);
    }
    private int factorial(int n) {
        if (n == 0 || n == 1) {
           return 1;
        } else {
            return n * factorial(n - 1);
    }
    private int sumOfDigits(int n) {
        int sum = 0;
        while (n > 0) {
           sum += n % 10;
            n /= 10;
```

```
return sum;
    }
    @Override
    public void onCreateContextMenu (ContextMenu menu, View v,
ContextMenu.ContextMenuInfo menuInfo) {
        super.onCreateContextMenu(menu, v, menuInfo);
        menu.setHeaderTitle("Choose an operation");
        menu.add(0, 1, 0, "Calculate Factorial");
        menu.add(0, 2, 0, "Calculate Sum of Digits");
        factorialTextView.setText("Factorial: ");
        sumOfDigitsTextView.setText("Sum of Digits: ");
    }
    @Override
    public boolean onContextItemSelected(@NonNull MenuItem item) {
        int number = Integer.parseInt(numberEditText.getText().toString());
        switch (item.getItemId()) {
            case 1:
                int factorialResult = factorial(number);
                factorialTextView.setText("Factorial: " + factorialResult);
                return true;
            case 2:
                int sumResult = sumOfDigits(number);
                sumOfDigitsTextView.setText("Sum of Digits: " + sumResult);
                return true;
            default:
                return super.onContextItemSelected(item);
    }
```

```
// slip18Q1.
//Q1 Create an android Application that Demostrate Alert Dilog
Box
<?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"</pre>
```

android:layout_width="match_parent"
android:layout height="match parent"

android:orientation="vertical"

```
tools:context=".MainActivity">
    <TextView
        android:id="@+id/textView"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="Hello World!"/>
</LinearLayout>
//Java file
package com.example.alterdilogboxapplication;
import android.content.DialogInterface;
import android.support.v7.app.AlertDialog;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        //Single button dilog box
       AlertDialog alertDialog=new AlertDialog.Builder(this).create();
       alertDialog.setTitle("Terms & Condition");
        alertDialog.setIcon(R.drawable.baseline info 24);
       alertDialog.setMessage("Have you read all the term and condition");
        alertDialog.setButton(DialogInterface.BUTTON POSITIVE, "Yes", new
DialogInterface.OnClickListener() {
                    @Override
                    public void onClick(DialogInterface dialogInterface, int
i) {
                        Toast.makeText(MainActivity.this, "Yes, You Can
Process now", Toast. LENGTH SHORT).show();
                   }
                });
        alertDialog.show();
}
```

(OR) MAM

XML FILE

```
<?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">

    <Button
        android:layout_width="wrap_content"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Close app"/>

</RelativeLayout>
```

JAVA FILE

```
package com.example.slip18dialogapplication;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
   Button closeButton;
   AlertDialog.Builder builder;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        closeButton=(Button) findViewById(R.id.btn);
        builder =new AlertDialog.Builder(this);
        closeButton.setOnClickListener(new View.OnClickListener() {
            @Override
```

```
public void onClick(View view) {
builder.setMessage(R.string.dialog message).setTitle(R.string.dialog title);
                builder .setMessage("Do you want to close this application")
                     .setCancelable(false)
                    .setPositiveButton("Yes", new
DialogInterface.OnClickListener() {
                      @Override
                      public void onClick(DialogInterface dialogInterface,
int i) {
                          finish();
                          Toast.makeText(MainActivity.this, "you choose yes
action for alert box", Toast.LENGTH SHORT).show();
                  })
                .setNegativeButton("No", new
DialogInterface.OnClickListener() {
                    @Override
                    public void onClick(DialogInterface dialogInterface, int
i) {
                        dialogInterface.cancel();
                        Toast.makeText(MainActivity.this, "you choose no
action for alert bo", Toast.LENGTH SHORT).show();
                });
                AlertDialog alert = builder.create();
                alert.setTitle("AlertDialogExample");
                alert.show();
        });
   }
```

string file in res->valiue->string.xml

Q2Create An android application to accept two number and find power and Average Display the result on the next Activity usin context menu

```
<?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/number1"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:inputType="numberDecimal"
        android:hint="Enter a number"/>
    <EditText
       android:id="@+id/number2"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:inputType="numberDecimal"
        android:hint="Enter another number"/>
    <But.ton
        android:id="@+id/calculate"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:text="Calculate"/>
</LinearLayout>
Java file 1
package com.example.slip18contextmenuapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
```

```
private EditText number1;
   private EditText number2;
    private Button calculate;
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        number1 = findViewById(R.id.number1);
        number2 = findViewById(R.id.number2);
        calculate = findViewById(R.id.calculate);
        calculate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                double num1 =
Double.parseDouble(number1.getText().toString());
                double num2 =  
Double.parseDouble(number2.getText().toString());
                double power = Math.pow(num1, num2);
                double average = (num1 + num2) / 2;
                Intent intent = new Intent (MainActivity.this,
SecondActivity.class);
                intent.putExtra("power", power);
                intent.putExtra("average", average);
                startActivity(intent);
        });
   }
```

xml file 2

```
</multi-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=".SecondActivity">

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

```
package com.example.slip18contextmenuapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.content.ClipData;
import android.content.ClipboardManager;
import android.content.Context;
import android.content.Intent;
import android.os.Bundle;
import android.view.ContextMenu;
import android.view.MenuItem;
import android.view.View;
import android.widget.TextView;
import android.widget.Toast;
public class SecondActivity extends AppCompatActivity {
   private TextView resultText;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity second);
        resultText = findViewById(R.id.result text);
        double power = getIntent().getDoubleExtra("power", 0);
        double average = getIntent().getDoubleExtra("average", 0);
        String result = "Power: " + power + "\nAverage: " + average;
        resultText.setText(result);
        registerForContextMenu(resultText);
    }
    @Override
    public void onCreateContextMenu (ContextMenu menu, View v,
ContextMenu.ContextMenuInfo menuInfo) {
        super.onCreateContextMenu(menu, v, menuInfo);
        getMenuInflater().inflate(R.menu.context menu, menu);
    }
    @Override
    public boolean onContextItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case R.id.power:
                ClipboardManager clipboard = (ClipboardManager)
getSystemService(Context.CLIPBOARD SERVICE);
```

```
ClipData clip = ClipData.newPlainText("result",
resultText.getText().toString());
                clipboard.setPrimaryClip(clip);
                Toast.makeText(this, "Result copied to clipboard",
Toast.LENGTH SHORT).show();
                return true;
            case R.id.average:
                Intent shareIntent = new Intent(Intent.ACTION SEND);
                shareIntent.setType("text/plain");
                shareIntent.putExtra(Intent.EXTRA TEXT,
resultText.getText().toString());
                startActivity(Intent.createChooser(shareIntent, "Share
result"));
                return true;
            default:
                return super.onContextItemSelected(item);
    }
```

Create menu file in res ->>creat new directori in >> that create context_menu for this >> go to res >> directory >> layou resource in ok

Slip19

Q1.Create an android application that on/off the bulb using Toggle Button

```
<?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=".MainActivity">

<ToggleButton
    android:id="@+id/toggle_button"</pre>
```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"/>
</LinearLayout>
```

```
package com.example.slip19bulbonoffapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Toast;
import android.widget.ToggleButton;
public class MainActivity extends AppCompatActivity {
    ToggleButton toggleButton;
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        toggleButton=(ToggleButton) findViewById(R.id.toggle button);
        toggleButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if(((ToggleButton)view).isChecked()){
                    Toast.makeText(MainActivity.this, "Bulb is on",
Toast.LENGTH SHORT).show();
                }else {
                    Toast.makeText(MainActivity.this, "Bilb is off",
Toast.LENGTH SHORT).show();
        });
    }
```

Q2). Create application to send SMS message. After sending message display delivery report of message.

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayoutxmlns: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">

<TextView
android:layout_width="wrap_content"
android:layout_width="wrap_content"
android:layout_height="wrap_content"</pre>
```

```
android:layout alignParentTop="true"
android:layout centerHorizontal="true"
android:textSize="30dp" />
<TextView
android:id="@+id/textView2"
android:layout width="wrap content"
android:layout height="wrap content"
android:textSize="30dp"
android:layout below="@+id/textView1" />
<EditText
android:layout width="wrap content"
android:layout height="wrap content"
android:id="@+id/editText"
android:hint="Enter Phone Number"
android:layout centerHorizontal="true" />
<EditText
android:id="@+id/editText2"
android:layout width="wrap content"
android:layout height="wrap content"
android:layout below="@+id/editText"
android:layout centerHorizontal="true"
android:hint="Enter SMS" />
<Button
android:layout width="wrap content"
android:layout height="wrap content"
android:text="Send Sms"
android:id="@+id/btnSendSMS"
android:layout below="@+id/editText2"
android:layout centerHorizontal="true"
android:layout marginTop="48dp" />
</RelativeLayout>
Main.java
public class MainActivityextends AppCompatActivity{
private static final int MY PERMISSIONS REQUEST SEND MSG = 0;
Button sendBtn;
EditTexttxtphoneNo;
EditTexttxtMessage;
String phoneNo;
String message;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
```

```
sendBtn= (Button) findViewById(R.id.btnSendSMS);
txtphoneNo= (EditText) findViewById(R.id.editText);
txtMessage= (EditText) findViewById(R.id.editText2);
sendBtn.setOnClickListener(new View.OnClickListener() {
public void onClick(View view) {
sendSMSMessage();
       });
protected void sendSMSMessage() {
phoneNo= txtphoneNo.getText().toString();
message = txtMessage.getText().toString();
if (ContextCompat.checkSelfPermission(this,
SEND MSG)
               != PackageManager. PERMISSION GRANTED) {
if (ActivityCompat.shouldShowRequestPermissionRationale(this,
SEND MSG)) {
            } else {
ActivityCompat.requestPermissions(this,
new String[]{Manifest.permission.SEND MSG},
MY PERMISSIONS REQUEST SEND MSG);
    }
@Override
public void onRequestPermissionsResult(int requestCode, String permissions[],
int[] grantResults) {
super.onRequestPermissionsResult(requestCode, permissions, grantResults);
switch (requestCode) {
case MY PERMISSIONS REQUEST SEND MSG: {
if (grantResults.length>0
&&grantResults[0] == PackageManager. PERMISSION GRANTED) {
smsManager.sendTextMessage(phoneNo, null, message, null, null);
Toast.makeText(getApplicationContext(), "SMS sent.",
Toast. LENGTH LONG) . show();
               } else {
Toast.makeText(getApplicationContext(),
"SMS faild, please try again.", Toast. LENGTH LONG).show();
return;
private class SEND MSG {
}
```

manefiest file.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
xmlns:tools="http://schemas.android.com/tools">
<uses-permission android:name="android.permission.SEND MSG" />
<application
android:allowBackup="true"
android:dataExtractionRules="@xml/data extraction rules"
android:fullBackupContent="@xml/backup rules"
android:icon="@mipmap/ic launcher"
android:label="@string/app name"
android:supportsRtl="true"
android:theme="@style/Theme.Slip19 2"
tools:targetApi="31">
<activity
android:name=".MainActivity"
android:exported="true">
<intent-filter>
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
</application>
</manifest>
```

//slip20

//q1.create Android Program to Change The image on the Screen

```
Xml file
```

```
<?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=".MainActivity"</pre>
```

```
android:orientation="vertical"
android:gravity="center">
<Button
    android:id="@+id/changeImageButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Click here to channge image"
    android:layout_marginBottom="100dp"
    android:gravity="center"/>
<ImageView
    android:id="@+id/image_view"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:src="@drawable/image1"/>
```

```
package com.example.sliceapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
public class MainActivity extends AppCompatActivity {
   private ImageView i1; //create variable for ImageView
   // private int[]
//image={R.drawable.image,R.drawable.nature image,R.drawable.sun sine img};
   // private int imageIndex=0; //declare here give private specifier
   //here we create array of images that you want to display in our app. and
strore this images in app resource i.e res->drawable
   int[] image = {R.drawable.image1, R.drawable.image2, R.drawable.image3};
   @Override
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity main);
       // here initialize the ImageView variable by findViewById()
       i1 = findViewById(R.id.image view);
       //here we create array of images that you want to display in our app.
and strore this images in app resource i.e res->drawable
       int[] image = {R.drawable.image1, R.drawable.image2,
R.drawable.image3};
       Button b1 = findViewById(R.id.changeImageButton); //button will
change image
       b1.setOnClickListener(new View.OnClickListener() {
           @Override
```

(OR) MAM

```
<?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">
    <LinearLayout
        android:layout width="match parent"
        android:layout height="wrap content"
        android:orientation="vertical"
        android:paddingBottom="40px"
        android:weightSum="2">
        < Radio Group
            android:id="@+id/rg"
            android:layout width="wrap content"
            android:layout height="match parent"
            android:orientation="vertical">
            <RadioButton
                android:id="@+id/rb1"
                 android:layout width="wrap content"
                android:layout height="wrap content"
                android:text="Image 1"/>
            < Radio Button
                android:id="@+id/rb2"
                android:layout width="wrap content"
                android:layout height="wrap content"
                android:text="Image 2"/>
            < Radio Button
```

```
android:id="@+id/rb3"
                android:layout width="wrap content"
                android:layout height="wrap content"
                android:text="Image 3"/>
        </RadioGroup>
    </LinearLayout>
    <ImageView</pre>
        android:id="@+id/imageView"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:src="@drawable/image1"/>
</RelativeLayout>
Java file
package com.example.imageapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.RadioGroup;
public class MainActivity extends AppCompatActivity implements
RadioGroup.OnCheckedChangeListener {
   RadioGroup group1;
    ImageView img;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        group1 = (RadioGroup) findViewById(R.id.rg);
group1.setOnCheckedChangeListener((RadioGroup.OnCheckedChangeListener)this);
        img = (ImageView) findViewById(R.id.imageView);
    }
    @Override
   public void onCheckedChanged(RadioGroup radioGroup, int i) {
        switch (i) {
            case R.id.rb1:
                img.setImageResource(R.drawable.image1);
```

```
break;

case R.id.rb2:
    img.setImageResource(R.drawable.image2);
    break;

case R.id.rb3:
    img.setImageResource(R.drawable.image3);
    break;

default:
    break;
}
```

Q.2. Demostrate Array Adapter using List View display list of Country XML file

```
<?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=".S200rQ1MenuActivity">
   <ListView
      android:id="@+id/country list"
       android:layout width="match parent"
       android:layout height="492dp" />
</LinearLayout>
//JAVA File
package com.example.sliceapplication;
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import java.util.ArrayList;
// array adpater with list view
public class S200rQ1MenuActivity extends AppCompatActivity {
    ListView countryListView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
       setContentView(R.layout.activity s20 or q1 menu);
       //Initialize the ListView
       countryListView=findViewById(R.id.country list);
        ArrayList<String>country=new ArrayList<>();
       country.add("india");
        country.add("china");
       country.add("America");
        //Creat an array of countires
       ArrayAdapter<String>arrayAdapter=new
ArrayAdapter<>(this, android.R.layout.simple list item 1, country);
      // array adapter h vo android ki class hoti h jo ki jo madat kari h
java ke array adapte karne m ya niki agar android ko java ke array list view
me dikhane h to usko array Adapter class ka estmal karna padega
       countryListView.setAdapter(arrayAdapter);
}
```