**MAD LAB**

**SET-1**

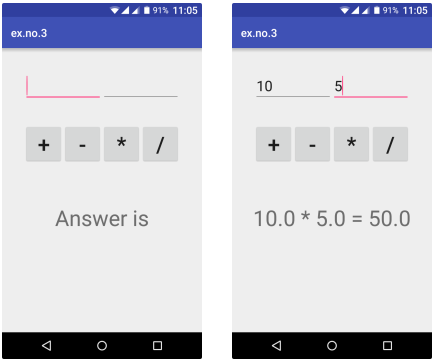
1. **Create an application to implement the Implicit intents.**

**Main\_activity.xml :**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <Button  
 android:id="@+id/btn\_webbrowser"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Web Browser"  
 android:onClick="onClickWebBrowser"/>  
 <Button  
 android:id="@+id/btn\_makecall"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Make Call"  
 android:onClick="onClickMakeCall"/>  
 <Button  
 android:id="@+id/btn\_showmap"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Show Map"  
 android:onClick="onClickShowMap"/>  
  
</LinearLayout>

**Main\_activity.java :**

package com.example.myapplication;  
import androidx.appcompat.app.AppCompatActivity;  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
  
public class MainActivity extends AppCompatActivity {  
  
 int request\_Code = 1;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
 public void onClickWebBrowser(View view) {  
 Intent i = new Intent(android.content.Intent.*ACTION\_VIEW*,Uri.*parse*("http://www.amazon.com"));  
 startActivity(i);  
 }  
 public void onClickMakeCalls(View view) {  
 Uri u= Uri.*parse*("tel:9988776655");  
 Intent i=new Intent(Intent.*ACTION\_DIAL*, u);  
 startActivity(i);  
 }  
 public void onClickShowMap(View view) {  
 Intent i = new Intent(android.content.Intent.*ACTION\_VIEW*,Uri.*parse*("geo:37.827500,-122.481670"));  
 startActivity(i);  
 }  
}

1. **Develop a Native Calculator Application.** 

*<?*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"  
 android:padding="20dp"  
 android:orientation="vertical"  
 android:background="@color/white">  
 <TableRow>  
 <TextView/>  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="CALCULATOR"  
 android:textSize="25sp"  
 android:textColor="@android:color/black" />  
 </TableRow>  
 <TableRow>  
 <EditText  
 android:id="@+id/first\_no"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Enter" />  
 </TableRow>  
 <TableRow>  
 <EditText  
 android:id="@+id/second\_no"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Enter" />  
 </TableRow>  
 <TableRow>  
 <TextView  
 android:textSize="35sp"  
 android:id="@+id/answer"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="ans" />  
 </TableRow>  
 <TableRow>  
 <Button  
 android:id="@+id/sub"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="-"  
 android:textSize="25sp"/>  
 <TextView/>  
 <Button  
 android:id="@+id/add"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="+"  
 tools:ignore="OnClick" />  
 </TableRow>  
 <TableRow>  
 <Button  
 android:id="@+id/div"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="/"  
 android:textSize="25sp" />  
 <TextView/>  
 <Button  
 android:id="@+id/mul"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="X"  
 android:textSize="25sp"/>  
 </TableRow>  
 <TableRow>  
 <TextView/>  
 <Button  
 android:id="@+id/equals"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="="  
 android:textSize="35sp"/>  
 </TableRow>  
</TableLayout>

**Main.java :**

package com.example.myapplication;  
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 {  
  
 EditText no1 , no2;  
 Button add ,mul ,div , sub,equal;  
 TextView answer;  
 double ans = 0;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 no1 = findViewById(R.id.*first\_no*);  
 no2 = findViewById(R.id.*second\_no*);  
 add = findViewById(R.id.*add*);  
 mul = findViewById(R.id.*mul*);  
 div = findViewById(R.id.*div*);  
 sub = findViewById(R.id.*sub*);  
 equal = findViewById(R.id.*equals*);  
 answer = findViewById(R.id.*answer*);  
  
 add.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String num1 = no1.getText().toString();  
 String num2 = no2.getText().toString();  
  
 if (num1.isEmpty() || num2.isEmpty()) {  
 Toast.*makeText*(getApplicationContext(),"Enter Numbers",Toast.*LENGTH\_SHORT*).show();  
 }  
 else {  
 double a = Double.*parseDouble*(no1.getText().toString());  
 double b = Double.*parseDouble*(no2.getText().toString());  
 ans = a + b;  
 }  
 }  
 });  
  
 sub.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String num1 = no1.getText().toString();  
 String num2 = no2.getText().toString();  
 if (num1.isEmpty() || num2.isEmpty()) {  
 Toast.*makeText*(getApplicationContext(),"Enter Numbers",Toast.*LENGTH\_SHORT*).show();  
 }  
 else {  
 double a = Double.*parseDouble*(no1.getText().toString());  
 double b = Double.*parseDouble*(no2.getText().toString());  
 ans = a - b;  
 }  
 }  
 });  
  
 mul.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String num1 = no1.getText().toString();  
 String num2 = no2.getText().toString();  
  
 if (num1.isEmpty() || num2.isEmpty()) {  
 Toast.*makeText*(getApplicationContext(),"Enter Numbers",Toast.*LENGTH\_SHORT*).show();  
 }  
 else {  
 double a = Double.*parseDouble*(no1.getText().toString());  
 double b = Double.*parseDouble*(no2.getText().toString());  
 ans = a \* b;  
 }  
 }  
 });  
  
 div.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String num1 = no1.getText().toString();  
 String num2 = no2.getText().toString();  
  
 if (num1.isEmpty() || num2.isEmpty()) {  
 Toast.*makeText*(getApplicationContext(), "Enter Numbers", Toast.*LENGTH\_SHORT*).show();  
 } else {  
 double a = Double.*parseDouble*(no1.getText().toString());  
 double b = Double.*parseDouble*(no2.getText().toString());  
 if (b != 0)  
 ans = a / b;  
 else  
 Toast.*makeText*(getApplicationContext(), "Enter Valid Numbers", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
  
 equal.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String ans1 = String.*valueOf*(ans);  
 answer.setText(ans1);  
 ans= 0;  
 }  
 });  
  
 }  
}

**SET -2**

1. Create an application to understand the Execution of Life Cycle of an Activity.

*<?*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:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Hello World...!"  
 android:textSize="100px" />  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Button" />  
  
</LinearLayout>

**Main.Java :**

package com.example.myapplication;  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
import android.util.Log;  
public class MainActivity extends AppCompatActivity {  
 String tag = "Life Cycle";  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 Log.*d*(tag,"onCreate() invoked");  
 }  
 protected void onStart(){  
 super.onStart();  
 Log.*d*(tag,"onStart() invoked");  
 }  
 protected void onResume(){  
 super.onResume();  
 Log.*d*(tag,"onResume() invoked");  
 }  
 protected void onPause() { super.onPause();  
 Log.*d*(tag,"onPause() invoked");  
 }  
 protected void onStop() { super.onStop();  
 Log.*d*(tag,"onstop() invoked");  
 }  
 protected void onRestart() { super.onRestart();  
 Log.*d*(tag,"onRestart() invoked");  
 }  
 protected void onDestroy() { super.onDestroy();  
 Log.*d*(tag,"onDestroy() invoked");  
 }  
  
}

1. Illustrate the use of Relative Layout along with Application

**Main.Xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<RelativeLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/lblComments"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Comments"  
 android:layout\_alignParentTop="true"  
 android:layout\_alignParentLeft="true"  
 android:textSize="100px" />  
 <EditText  
 android:id="@+id/txtComments"  
 android:layout\_width="match\_parent"  
 android:layout\_height="170px"  
 android:textSize="50px"  
 android:layout\_alignLeft="@id/lblComments"  
 android:layout\_below="@id/lblComments"/>  
  
 <Button  
 android:id="@+id/btnSave"  
 android:layout\_width="207dp"  
 android:layout\_height="65dp"  
 android:layout\_below="@id/txtComments"  
 android:layout\_alignRight="@id/txtComments"  
 android:text="Save" />  
  
 <Button  
 android:id="@+id/btnCancel"  
 android:layout\_width="197dp"  
 android:layout\_height="59dp"  
 android:layout\_below="@id/txtComments"  
 android:layout\_alignLeft="@id/txtComments"  
 android:text="Cancel" />  
  
</RelativeLayout>

**SET-3**

1. Displaying Alert Dialog objects.

**Main.Java :**

package com.example.myapplication;  
  
import androidx.appcompat.app.AlertDialog;  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.Toast;  
import android.app.ProgressDialog;  
import android.content.DialogInterface;  
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.*button*);  
 builder = new AlertDialog.Builder(this);  
 closeButton.setOnClickListener(new View.OnClickListener() {  
 public void onClick(View v) {  
 builder.setMessage("Are you Sure, You want to Exit");  
 builder.setCancelable(false);  
 builder.setPositiveButton("yes", new DialogInterface.OnClickListener() {  
 public void onClick(DialogInterface dialog, int which) {  
 finish();  
 Toast.*makeText*(getApplicationContext(), "", Toast.*LENGTH\_SHORT*).show();  
 }  
 });

builder.setNegativeButton("NO", new DialogInterface.OnClickListener() {  
 public void onClick(DialogInterface dialog, int which) {  
 dialog.cancel();  
 Toast.*makeText*(getApplicationContext(), "you choose the no action in the alert box", Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
 AlertDialog alert = builder.create();  
 alert.setTitle("Confirm Exit...!");  
 alert.show();  
 }  
 });  
 }  
}

**Main.Xml :**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 tools:context=".MainActivity">  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Close Application"/>  
</LinearLayout>

1. Create an application to read price and quantity of an item and calculate the total cost, and display to the user.

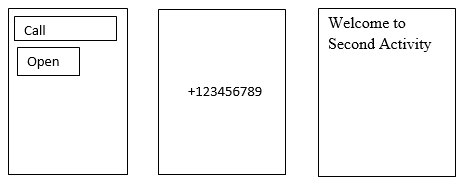
**Main.Xml:**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"  
 android:padding="20dp"  
 android:orientation="vertical"  
 android:background="@color/white">  
 <EditText  
 android:id="@+id/first\_no"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Price"/>  
 <EditText  
 android:id="@+id/second\_no"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Quantity"/>  
 <Button  
 android:id="@+id/price"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Rate"/>  
  
 <Button  
 android:id="@+id/equals"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Get\_Price"  
 android:onClick="onClick"/>  
 <TextView  
 android:textSize="35sp"  
 android:id="@+id/answer"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" />  
  
</LinearLayout>

**Main. Java :**

package com.example.myapplication;  
  
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 {  
  
 EditText no1 , no2;  
 Button price,equal;  
 TextView answer;  
 double ans = 0;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 no1 = findViewById(R.id.*first\_no*);  
 no2 = findViewById(R.id.*second\_no*);  
 price = findViewById(R.id.*price*);  
 equal = findViewById(R.id.*equals*);  
 answer = findViewById(R.id.*answer*);  
  
 price.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String num1 = no1.getText().toString();  
 String num2 = no2.getText().toString();  
  
 if (num1.isEmpty() || num2.isEmpty()) {  
 Toast.*makeText*(getApplicationContext(),"Enter Numbers",Toast.*LENGTH\_SHORT*).show();  
 }  
 else {  
 double a = Double.*parseDouble*(no1.getText().toString());  
 double b = Double.*parseDouble*(no2.getText().toString());  
 ans = a \* b;  
 }  
 }  
 });  
 equal.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String ans1 = String.*valueOf*(ans);  
 answer.setText(ans1);  
 ans= 0;  
 }  
 });  
  
 }  
}

**SET-4**

1. Create an application to implement the following output 

**Main.Xml :**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <Button  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Open"  
 android:onClick="showSecond" />  
  
 <Button  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="call"  
 android:onClick="makeacall" />  
  
</LinearLayout>

**Main.Java :**

package com.example.myapplication;  
  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
}  
 public void showSecond(View view) {  
 Intent i1 = new Intent(this, MainActivity2.class);  
 int request\_Value = 0;  
 startActivityForResult(i1, request\_Value);  
 }  
  
  
 public void makeacall(View view)  
 {  
 Uri u=Uri.*parse*("tel:9988776655");  
 Intent i=new Intent(Intent.*ACTION\_DIAL*,u);  
 startActivity(i);  
 }  
}

**Main2.Xml :**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity2">  
  
 <TextView  
 android:id="@+id/tx1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Welcome To Second Activity"/>  
  
</LinearLayout>

**Main2. Java :**

package com.example.myapplication;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.EditText;  
  
public class MainActivity2 extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main2*);  
 }  
}

1. Create an Attendance form using 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:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
 <TableRow>  
 <TextView/>  
 <TextView/>  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="All"  
 android:textSize="100px" />  
 </TableRow>  
 <TableRow>  
 <Button  
 android:id="@+id/B1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="1" />  
 <Button  
 android:id="@+id/B2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="2" />  
 <Button  
 android:id="@+id/B3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="3" />  
 <Button  
 android:id="@+id/B4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="4" />  
 <Button  
 android:id="@+id/B5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="5" />  
   
 </TableRow>  
 <TableRow>  
 <Button  
 android:id="@+id/B6"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="6" />  
 <Button  
 android:id="@+id/B7"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="7" />  
 <Button  
 android:id="@+id/B8"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="8" />  
 <Button  
 android:id="@+id/B9"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="9" />  
 <Button  
 android:id="@+id/B10"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="10" />  
  
 </TableRow>  
 <TableRow>  
 <TextView/>  
 <TextView/>  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Save"  
 android:textSize="60px" />  
 </TableRow>  
</TableLayout>

**Main.java :**

package com.example.myapplication;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
 Button B;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 B = (Button) findViewById(R.id.*btn1*);  
 }  
 public void onClick(View view)  
 {  
 Toast.*makeText*(getApplicationContext(),"Submitted Sucessfully", Toast.*LENGTH\_SHORT*).show();  
 }  
}

**SET-5**

1. Create an application to implement the Explicit intents.

**Activity\_main.xml:**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 tools:context=".MainActivity">  
 <Button  
 android:id="@+id/btn1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Display Second Activity"  
 android:onClick="onClick"/>  
</LinearLayout>

**Activity2\_main.xml:**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity2">  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Welcome to Second Activity"/>  
  
</LinearLayout>

**Main\_activity.Java:**

package com.example.myapplication;  
import androidx.appcompat.app.AppCompatActivity;  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.Button;  
import android.view.View;  
  
public class MainActivity extends AppCompatActivity {  
 Button B  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 B = (Button) findViewById(R.id.*btn1*);  
   
 public void onClick(View view) {  
 Intent i = new Intent(MainActivity.this, MainActivity2.class);  
 startActivity(i);  
 }  
}

**Main2\_activity.Java :**

package com.example.myapplication  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle;  
public class MainActivity2 extends AppCompatActivity {  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main2*);  
 }  
}

1. Create an application Passing data using intent object.

**Main.Xml :**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <Button  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="display secongActivity"  
 android:onClick="showSecond"/>  
  
</LinearLayout>

**Main\_Activity.java :**

package com.example.myapplication;  
import androidx.appcompat.app.AppCompatActivity;  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
 int request\_Value = 1;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
   
 public void showSecond(View view) {  
 Intent i1 = new Intent(this, MainActivity2.class);  
 startActivityForResult(i1, request\_Value);  
 }  
 protected void onActivityResult(int requestCode, int resultCode, Intent data) {  
 super.onActivityResult(requestCode, resultCode, data);  
 if (requestCode == requestCode) {  
 if (resultCode == *RESULT\_OK*) {  
 Toast.*makeText*(this, data.getData().toString(), Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 }  
}

**Main2.Xml :**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity2">  
  
 <TextView  
 android:id="@+id/t1"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Enter your name"/>  
 <EditText  
 android:id="@+id/e1"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content" />  
 <Button  
 android:id="@+id/b1"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="ok"  
 android:onClick="meth1"/>  
  
  
</LinearLayout>

**Main\_activity2.java :**

package com.example.myapplication  
import androidx.appcompat.app.AppCompatActivity;  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.EditText;  
public class MainActivity2 extends AppCompatActivity   
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main2*);  
 }  
 public void meth1(View view) {  
 Intent data = new Intent();  
 EditText ed = (EditText) findViewById(R.id.*e1*);  
 data.setData(Uri.*parse*(ed.getText().toString()));  
 setResult(*RESULT\_OK*, data);  
 finish();  
 }  
}

**SET-6**

1. Create an application to add fragments dynamically based on the orientation of the Activity.

**Fragment1.xml** <?xml version=”1.0” encoding=”utf-8”?>

<LinearLayout

xmlns:android=”http://schemas.android.com/apk/res/android”

android:orientation=”vertical”

android:layout\_width=”fill\_parent”

android:layout\_height=”fill\_parent”

android:background=”#00FF00” >

<TextView

android:layout\_width=”fill\_parent”

android:layout\_height=”wrap\_content”

android:text=”This is fragment #1”

android:textColor=”#000000”

android:textSize=”25sp” />

</LinearLayout>

**Fragment2.xml** <?xml version=”1.0” encoding=”utf-8”?>

<LinearLayout xmlns:android=”http://schemas.android.com/apk/res/android”

android:orientation=”vertical”

android:layout\_width=”fill\_parent”

android:layout\_height=”fill\_parent”

android:background=”#FFFE00”>

<TextView

android:layout\_width=”fill\_parent”

android:layout\_height=”wrap\_content”

android:text=”This is fragment #2”

android:textColor=”#000000”

android:textSize=”25sp” />

</LinearLayout>

### Fragment1.java

package net.learn2develop.Fragments;

import android.app.Fragment;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class Fragment1 extends Fragment {

public View onCreateView(LayoutInflater inflater,ViewGroup container, Bundle savedInstanceState) {

return inflater.inflate(R.layout.fragment1, container, false);

}

}

**Fragment2.java** package net.learn2develop.Fragments; import android.app.Fragment;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class Fragment2 extends Fragment {

public View onCreateView(LayoutInflater inflater,ViewGroup container, Bundle savedInstanceState) {

return inflater.inflate(R.layout.fragment2, container, false);

}

}

### Main\_Activity.java

package net.learn2develop.Fragments; import android.app.Activity; import android.app.FragmentManager; import android.app.FragmentTransaction; import android.os.Bundle; import android.view.Display; import android.view.WindowManager; public class FragmentsActivity extends Activity { public void onCreate(Bundle savedInstanceState)

{ super.onCreate(savedInstanceState);

FragmentManager fm = getFragmentManager();

FragmentTransaction ft =fragmentManager.beginTransaction();

WindowManager wm = getWindowManager(); Display d = wm.getDefaultDisplay(); if (d.getWidth() > d.getHeight())

{

Fragment1 fragment1 = new Fragment1(); ft.replace(android.R.id.content, fragment1);

} else

{

Fragment2 fragment2 = new Fragment2();

ft.replace(android.R.id.content, fragment2);

} ft.commit();

}

}

1. **Create an application using Frame Layout.**

*<?*xml version="1.0" encoding="utf-8"*?>*

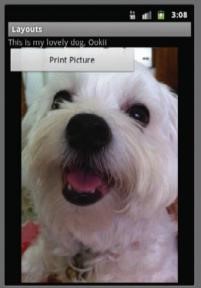
<RelativeLayout

android:id=”@+id/Rlayout”

android:layout\_width=”fill\_parent”

android:layout\_height=”fill\_parent”

xmlns:android=”[http://schemas.android.com/apk/res/android”](http://schemas.android.com/apk/res/android)>

 <TextView

android:id=”@+id/lblcomments” android:layout\_width=”wrap\_content” android:layout\_height=”wrap\_content” android:text=”Hello, Android” android:layout\_alignParentTop=”true”

android:layout\_alignParentLeft=”true”/>

<FrameLayout

android:layout\_width=”wrap\_content” android:layout\_height=”wrap\_content” android:layout\_alignLeft=”@+id/lblComments” android:layout\_below=”@+id/lblComments”

android:layout\_centerHorizontal=”true”>

<ImageView

android:src = “@drawable/ookii”

android:layout\_width=”wrap\_content”

android:layout\_height=”wrap\_content”/>

<Button

android:layout\_width=”124dp”

android:layout\_height=”wrap\_content”

android:text=”Print Picture” />

</FrameLayout>

**SET-7**

1. Create an application for Communication between fragments.

### Fragment1.xml

<?xml version=”1.0” encoding=”utf-8”?>

<LinearLayout xmlns:android=”http://schemas.android.com/apk/res/android”

android:orientation=”vertical” android:layout\_width=”fill\_parent” android:layout\_height=”fill\_parent” android:background=”#00FF00” >

<TextView android:id=”@+id/lblFragment1” android:layout\_width=”fill\_parent” android:layout\_height=”wrap\_content” android:text=”This is fragment #1” android:textColor=”#000000” android:textSize=”25sp” />

</LinearLayout>

### Fragments2.xml

<?xml version=”1.0” encoding=”utf-8”?>

<LinearLayout xmlns:android=”http://schemas.android.com/apk/res/android”

android:orientation=”vertical” android:layout\_width=”fill\_parent” android:layout\_height=”fill\_parent” android:background=”#FFFE00” >

<TextView android:layout\_width=”fill\_parent” android:layout\_height=”wrap\_content” android:text=”This is fragment #2” android:textColor=”#000000” android:textSize=”25sp” />

<Button android:id=”@+id/btnGetText” android:layout\_width=”wrap\_content” android:layout\_height=”wrap\_content” android:text=”Get text in Fragment #1” android:textColor=”#000000” android:onClick=”onClick” />

</LinearLayout>

### Main.xml

<?xml version=”1.0” encoding=”utf-8”?>

<LinearLayout xmlns:android=<http://schemas.android.com/apk/res/android>android:layout\_width=”fill\_parent” android:layout\_height=”fill\_parent” android:orientation=”horizontal” >

<fragment android:name=”net.learn2develop.Fragments.Fragment1” android:id=”@+id/fragment1” android:layout\_weight=”1” android:layout\_width=”0px”

android:layout\_height=”match\_parent” />

<fragment

android:name=”net.learn2develop.Fragments.Fragment2” android:id=”@+id/fragment2” android:layout\_weight=”1” android:layout\_width=”0px”

android:layout\_height=”match\_parent” />

</LinearLayout>

### Mainactivity.java

public class FragmentsActivity extends Activity

{

public void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState);

setContentView(R.layout.main);

}

}

**Fragment2.java**

package net.learn2develop.Fragments;

import android.app.Fragment;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import android.widget.Button;

import android.widget.TextView;

import android.widget.Toast;

public class Fragment2 extends Fragment {

public View onCreateView(LayoutInflater inflater,ViewGroup container, Bundle savedInstanceState) {

return inflater.inflate(R.layout.fragment2, container, false);

} public void onStart() { super.onStart();

Button btnGetText = (Button)getActivity().findViewById(R.id.btnGetText); btnGetText.setOnClickListener(new View.OnClickListener() { public void onClick(View v) {

TextView lbl = (TextView)getActivity().findViewById (R.id.lblFragment1); Toast.makeText(getActivity(), lbl.getText(),Toast.LENGTH\_SHORT). show();

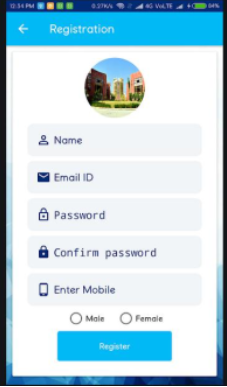
}

});

}

}

1. Create an application of Registration form.



**Main.xml :**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
 <FrameLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content">  
 <ImageView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:src="@drawable/ic\_launcher\_foreground"  
 android:gravity="center"/>  
 </FrameLayout>  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Name"/>  
 <EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Email Id"/>  
 <EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Password"/>  
 <EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Confirm Password"/>  
 <EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Mobile No"/>  
 <EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
 <RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content">  
 <RadioGroup  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerInParent="true">  
 <RadioButton  
 android:id="@+id/radioMale"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Male"  
 android:checked="true" />  
 <RadioButton  
 android:id="@+id/radioFemale"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Female" />  
 </RadioGroup>  
 </RelativeLayout>  
 <Button  
 android:id="@+id/Register"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Register"  
 android:gravity="center"  
 android:onClick="onClick" />  
</LinearLayout>

**Main.Java :**

package com.example.myapplication;  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
 Button B;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 B = (Button) findViewById(R.id.*Register*);  
 }  
 public void onClick(View view)  
 {  
 Toast.*makeText*(getApplicationContext(),"Register Sucessfully", Toast.*LENGTH\_SHORT*).show();  
 }  
}

**SET-8**

1. Display the Action Bar with action items.

**Main.xml:**

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

<menu xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:android="http://schemas.android.com/apk/res/android">

<!-- action button for search -->

<item android:title="search"

android:id="@+id/search"

android:orderInCategory="100"

app:showAsAction="ifRoom"

android:icon="@drawable/search\_icon"/>

<!-- action button for refresh -->

<item android:title="refresh"

android:id="@+id/refresh"

android:orderInCategory="100"

app:showAsAction="ifRoom"

android:icon="@drawable/refresh\_icon"/>

<!-- action button for copy -->

<item android:title="copy"

android:id="@+id/copy"

android:orderInCategory="100"

app:showAsAction="never"

android:icon="@drawable/copy\_icon"/>

</menu>

**Main.Java:**

import androidx.annotation.NonNull;

import androidx.appcompat.app.ActionBar;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.Menu;

import android.view.MenuItem;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate( Bundle savedInstanceState ) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// calling this activity's function to

// use ActionBar utility methods

ActionBar actionBar = getSupportActionBar();

// providing title for the ActionBar

actionBar.setTitle(" GfG | Action Bar");

// providing subtitle for the ActionBar

actionBar.setSubtitle(" Design a custom Action Bar");

// adding icon in the ActionBar

actionBar.setIcon(R.drawable.app\_logo);

// methods to display the icon in the ActionBar

actionBar.setDisplayUseLogoEnabled(true);

actionBar.setDisplayShowHomeEnabled(true);

}

// method to inflate the options menu when

// the user opens the menu for the first time

@Override

public boolean onCreateOptionsMenu( Menu menu ) {

getMenuInflater().inflate(R.menu.main, menu);

return super.onCreateOptionsMenu(menu);

}

// methods to control the operations that will

// happen when user clicks on the action buttons

@Override

public boolean onOptionsItemSelected( @NonNull MenuItem item ) {

switch (item.getItemId()){

case R.id.search:

Toast.makeText(this, "Search Clicked", Toast.LENGTH\_SHORT).show();

break;

case R.id.refresh:

Toast.makeText(this, "Refresh Clicked", Toast.LENGTH\_SHORT).show();

break;

case R.id.copy:

Toast.makeText(this, "Copy Clicked", Toast.LENGTH\_SHORT).show();

break;

}

return super.onOptionsItemSelected(item);

}

}



1. Create an application to perform addition of two numbers.

**Main.Java:**

<?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:layout\_centerHorizontal="true"

tools:context=".MainActivity">

<TextView

android:id="@+id/textview1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentTop="true"

android:layout\_centerHorizontal="true"

android:text="Enter number 1"

android:textSize="18sp" />

<EditText

android:id="@+id/first"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/textview1"

android:layout\_alignParentTop="false"

android:layout\_alignParentRight="false"

android:layout\_centerHorizontal="true"

android:ems="10"

android:inputType="number" />

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/first"

android:layout\_centerHorizontal="true"

android:text="Enter Number 2"

android:textSize="18sp" />

<EditText

android:id="@+id/second"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/textView2"

android:layout\_centerHorizontal="true"

android:ems="10"

android:inputType="number" />

<Button

android:id="@+id/buttonadd"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/second"

android:layout\_centerHorizontal="true"

android:text="Add" />

<TextView

android:id="@+id/result"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/buttonadd"

android:layout\_centerHorizontal="true"

android:textSize="24sp" />

</RelativeLayout>

**Main.java:**

package org.teachics.addition;

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;

public class MainActivity extends AppCompatActivity {

EditText firstnum,secondnum;

TextView r;

Button bt;

double a,b,c;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

firstnum=(EditText) findViewById(R.id.first);

secondnum=(EditText) findViewById(R.id.second);

bt=(Button) findViewById(R.id.buttonadd);

r=(TextView) findViewById(R.id.result);

bt.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

a=Double.parseDouble(firstnum.getText().toString());

b=Double.parseDouble(secondnum.getText().toString());

c=a+b;

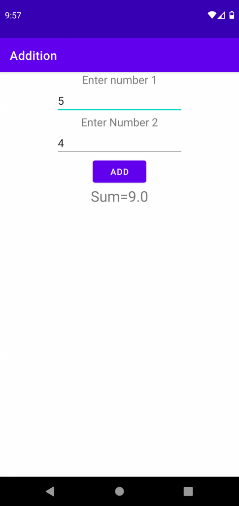
r.setText("Sum="+c);

}

});

}

}



**SET-9**

1. Create an application for Handling of View events.

**Main.xml:**

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

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical" >

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_centerHorizontal="true"

android:layout\_marginLeft="100dp"

android:fontFamily="@font/arya\_bold"

android:text="Hello World! "

android:textColor="@color/colorPrimaryDark"

android:textSize="50dp" />

</LinearLayout>

**Main.java:**

**Main.java**

package net.learn2develop.BasicViews1;

import android.app.Activity;

import android.os.Bundle;

import android.view.View;

import android.widget.CheckBox;

import android.widget.RadioButton;

import android.widget.RadioGroup;

import android.widget.Toast;

import android.widget.ToggleButton;

public class MainActivity extends Activity {

public void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.main);

Button btnOpen = (Button) findViewById(R.id.btnOpen); btnOpen.setOnClickListener(new View.OnClickListener() { public void onClick(View v) {

DisplayToast(“You have clicked the Open button”); } });

Button btnSave = (Button) findViewById(R.id.btnSave); btnSave.setOnClickListener(new View.OnClickListener()

{

public void onClick(View v) {

DisplayToast(“You have clicked the Save button”); } });

CheckBox checkBox = (CheckBox) findViewById(R.id.chkAutosave); checkBox.setOnClickListener(new View.OnClickListener()

{

public void onClick(View v) { if (((CheckBox)v).isChecked())

DisplayToast(“CheckBox is checked”); else

DisplayToast(“CheckBox is unchecked”); } });

RadioGroup rdg1 = (RadioGroup) findViewById(R.id.rdbGp1); rdg1.setOnCheckedChangeListener(new OnCheckedChangeListener(){ public void onCheckedChanged(RadioGroup group, int checkedId) {

RadioButton rb1 = (RadioButton) findViewById(R.id.rdb1); if (rb1.isChecked())

DisplayToast(“Option 1 checked!”);

else

DisplayToast(“Option 2 checked!”); } });

ToggleButton tb1 = (ToggleButton) findViewById(R.id.toggle1); tb1.setOnClickListener(new View.OnClickListener(){ public void onClick(View v) {

if (((ToggleButton)v).isChecked())

DisplayToast(“Toggle button is On”); else

DisplayToast(“Toggle button is Off”); } });

private void DisplayToast(String msg) {

Toast.makeText(getBaseContext(), msg, Toast.LENGTH\_SHORT).show(); } }

1. Create an application which displays three buttons as Blue, Green, Red. The background colour of an activity changes whenever by pressing the corresponding button.

**Main.xml:**

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

<RelativeLayout

xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:id="@+id/rlVar1"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="@color/green"

tools:context=".MainActivity">

<TextView

android:id="@+id/tvVar1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_centerHorizontal="true"

android:layout\_marginTop="240dp"

android:text="What would you like?"

android:textSize="30dp"

android:textStyle="bold" />

<LinearLayout

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@+id/tvVar1"

android:layout\_centerInParent="true"

android:layout\_marginTop="60dp"

android:orientation="horizontal"

android:padding="10dp">

<Button

android:id="@+id/btVar1"

android:layout\_width="150dp"

android:layout\_height="wrap\_content"

android:padding="20dp"

android:text="Cool"

android:textSize="25dp" />

<Button

android:id="@+id/btVar2"

android:layout\_width="150dp"

android:layout\_height="wrap\_content"

android:padding="20dp"

android:text="Warm"

android:textSize="25dp" />

</LinearLayout>

</RelativeLayout>

**Colors.xml:**

<color name="colorPrimary">#6200EE</color>

<color name="colorPrimaryDark">#3700B3</color>

<color name="colorAccent">#03DAC5</color>

<color name="green">#0F9D58</color>

<color name="cool">#188FCF</color>

<color name="warm">#F1D416</color>

**Main.Java:**

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.RelativeLayout;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button button1, button2;

final RelativeLayout relativeLayout;

// set button 1 with its id

button1 = findViewById(R.id.btVar1);

// set button 2 with its id

button2 = findViewById(R.id.btVar2);

// set relative layout with its id

relativeLayout = findViewById(R.id.rlVar1);

// onClick function for button 1

button1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

// set the color to relative layout

relativeLayout.setBackgroundResource(R.color.cool);

}

});

// onClick function for button 2

button2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

// set the color to relative layout

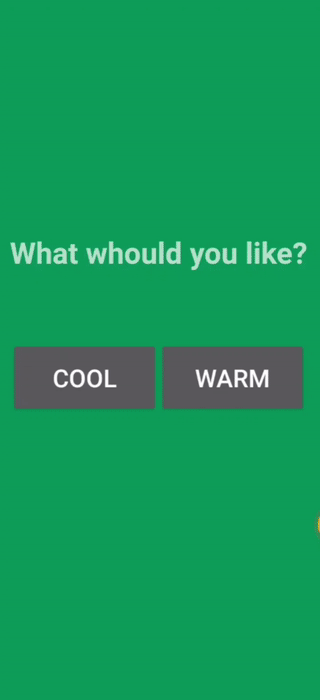
relativeLayout.setBackgroundResource(R.color.warm);

}

});

}

}



**SET-10**

1. **Design a UI to apply the Scroll view to the contents available in Activity.**

**Main.xml:**

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

<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:fillViewport="false">

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:orientation="vertical" android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<TextView android:id="@+id/loginscrn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="80dp"

android:text="ScrollView"

android:textSize="25dp"

android:textStyle="bold"

android:layout\_gravity="center"/>

<TextView android:id="@+id/fstTxt"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="20dp"

android:text="Welcome to Tutlane"

android:layout\_gravity="center"/>

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button One" />

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button Two" />

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button Three" />

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button Four" />

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button Five" />

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button Six" />

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button Seven" />

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button Eight" />

<Button android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

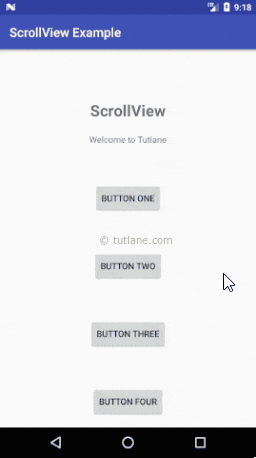
android:layout\_gravity="center"

android:layout\_marginTop="60dp"

android:text="Button Nine" />

</LinearLayout>

</ScrollView>



1. **Create BMI Calculator application.**  

**Main.xml:**

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

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:gravity="center"

tools:context=".MainActivity">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="BMI Calculator"

android:textAllCaps="true"

android:textSize="26sp"

android:layout\_marginVertical="25dp"

android:textColor="#212121"/>

<TextView

android:layout\_width="match\_parent"

android:layout\_marginHorizontal="50dp"

android:layout\_height="wrap\_content"

android:text="Your Height in Cm"

android:textColor="#000”/>

<EditText

android:id="@+id/height"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginHorizontal="50dp"

android:layout\_marginVertical="10dp"

android:paddingHorizontal="15dp"

android:paddingVertical="12dp"

android:inputType="numberDecimal"/>

<TextView

android:layout\_width="match\_parent"

android:layout\_marginHorizontal="50dp"

android:layout\_height="wrap\_content"

android:text="Your Weight in kg "

android:textColor="#000"/>

<EditText

android:id="@+id/weight"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginHorizontal="50dp"

android:layout\_marginVertical="10dp"

android:paddingHorizontal="15dp"

android:paddingVertical="12dp"

android:inputType="numberDecimal"/>

<Button

android:id="@+id/btn"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginHorizontal="50dp"

android:text="Calculate"

android:textColor="#fafafa"

android:textSize="28sp"

android:background="#0984e3"/>

<TextView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textAlignment="center"

android:layout\_marginHorizontal="50dp"

android:text="Your Result"

android:textAllCaps="true"

android:textSize="26sp"

android:layout\_marginVertical="15dp"/>

<TextView

android:id="@+id/result"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="30sp"

android:text=""/>

<TextView

android:id="@+id/bmiCat"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="30sp"

android:text=""/>

</LinearLayout>

**MainActivity.java:**

package com.easeprogramming.bmicalculator;

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 java.text.DecimalFormat;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

myButtonListenerMethod();

}

public void myButtonListenerMethod() {

Button button = findViewById(R.id.btn);

button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

final EditText heightText = findViewById(R.id.height);

String heightStr = heightText.getText().toString();

double height = Double.parseDouble(heightStr);

double heightM = height/100;

final EditText weightText = findViewById(R.id.weight);

String weightStr = weightText.getText().toString();

double weight = Double.parseDouble(weightStr);

double BMI = (weight) / (heightM \* heightM);

DecimalFormat df = new DecimalFormat("#.#");

double BMI\_trimmed = Double.parseDouble(df.format(BMI));

final TextView BMIResult = findViewById(R.id.result);

BMIResult.setText(Double.toString(BMI\_trimmed));

String BMI\_Cat;

if (BMI < 15){

BMI\_Cat = "Very severely underweight";

}

else if (BMI >= 15 && BMI < 16){

BMI\_Cat = "Severely underweight";

}

else if (BMI >=16 && BMI < 18.5){

BMI\_Cat = "Underweight";

}

else if (BMI >=18.5 && BMI < 25){

BMI\_Cat = "Normal";

}

else if (BMI >= 25 && BMI < 30){

BMI\_Cat = "Overweight";

}

else if (BMI>=30 && BMI < 35 ){

BMI\_Cat = "Obese Class 1 - Moderately Obese";

}

else if (BMI>= 35 && BMI < 40){

BMI\_Cat = "Obese Class 2 - Severely Obese";

}

else {

BMI\_Cat = "Obese Class 3 - Very Severely Obese";

}

final TextView BMICategory = findViewById(R.id.bmiCat);

BMICategory.setText(BMI\_Cat);

}

});

}

}