ANDROID APPLICATION PROGRAMMING

# Assignment No.1

1. Write a Program to make Android application which having simple activity to shows any Message in TextView when click on Button “Click Me.”

package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

import android.view.View; import android.widget.Button; import android.widget.TextView;

public class MainActivity extends AppCompatActivity { public Button bt1;

public TextView tv1; @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

bt1=(Button)findViewById(R.id.bt1);

tv1=(TextView)findViewById(R.id.tv1); bt1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) { tv1.setText("This is First Android App");

}

});

}

}

1. Write a Program to make Android application which accept string by EdiText and print that string in

Uppercase, Bold, Size = 64dp, Center Alignment, Change Text Color when you click on Show Button.

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 { public Button mybtn;

public TextView mytv1; public EditText myed; @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); mybtn=(Button)findViewById(R.id.btn1); mytv1=(TextView)findViewById(R.id.tv1);

myed=(EditText)findViewById(R.id.ed1);

mybtn.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View v) {

String s=myed.getText().toString(); mytv1.setText(s);

}

});

}

}

1. Write a Program to make Android application which shows use of all methods in Activity life cycle.

package example.javatpoint.com.activitylifecycle; import android.app.Activity;

import android.os.Bundle; import android.util.Log;

public class MainActivity extends Activity { @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); Log.d("lifecycle","onCreate invoked");

}

@Override

protected void onStart() { super.onStart(); Log.d("lifecycle","onStart invoked");

}

@Override

protected void onResume() { super.onResume(); Log.d("lifecycle","onResume invoked");

}

@Override

protected void onPause() { super.onPause(); Log.d("lifecycle","onPause invoked");

}

@Override

protected void onStop() { super.onStop(); Log.d("lifecycle","onStop invoked");

}

@Override

protected void onRestart() { super.onRestart(); Log.d("lifecycle","onRestart invoked");

}

@Override

protected void onDestroy() { super.onDestroy(); Log.d("lifecycle","onDestroy invoked");

}

}

1. Write a Program to make Android application which accept the any number and finds square. Result

display in TextView after click on Button Show.

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 { public Button mybtn;

public TextView mytv1; public EditText myed; @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); mybtn=(Button)findViewById(R.id.btn1); mytv1=(TextView)findViewById(R.id.tv1);

myed=(EditText)findViewById(R.id.enm1);

mybtn.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View v) {

int n=Integer.parseInt(myed.getText().toString()); int a=n\*n;

String s=String.valueOf(a); mytv1.setText(s);

mytv1.setText("The square of " + n + " is " + s);

}

});

}

}

1. Write a Program to make Android application creates a simple calculator to make addition, subtraction,

multiplication & division. which accept any two values and display results in EditText.

package com.example.simple\_calculator;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

import android.view.View; import android.widget.EditText;

public class MainActivity extends AppCompatActivity { @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

}

public void Add(View v){

EditText et1 =(EditText)findViewById(R.id.editTextNumber); EditText et2 =(EditText)findViewById(R.id.editTextNumber2); EditText et3 =(EditText)findViewById(R.id.editTextNumber3); int n1 = Integer.parseInt(et1.getText().toString());

int n2 = Integer.parseInt(et2.getText().toString());

int result = n1+n2; et3.setText("Total Value " +result);

}

public void Subtract(View v){

EditText et1 =(EditText)findViewById(R.id.editTextNumber); EditText et2 =(EditText)findViewById(R.id.editTextNumber2); EditText et3 =(EditText)findViewById(R.id.editTextNumber3); int n1 = Integer.parseInt(et1.getText().toString());

int n2 = Integer.parseInt(et2.getText().toString()); int result = n1-n2;

et3.setText("Subtract Value " +result);

}

public void Multiply(View v){

EditText et1 =(EditText)findViewById(R.id.editTextNumber); EditText et2 =(EditText)findViewById(R.id.editTextNumber2); EditText et3 =(EditText)findViewById(R.id.editTextNumber3); int n1 = Integer.parseInt(et1.getText().toString());

int n2 = Integer.parseInt(et2.getText().toString()); int result = n1\*n2;

et3.setText("Multiply Value " +result);

}

public void Divide(View v){

EditText et1 =(EditText)findViewById(R.id.editTextNumber); EditText et2 =(EditText)findViewById(R.id.editTextNumber2); EditText et3 =(EditText)findViewById(R.id.editTextNumber3); int n1 = Integer.parseInt(et1.getText().toString());

int n2 = Integer.parseInt(et2.getText().toString());

int result = n1/n2; et3.setText("Divide Value " +result);

}

}

1. Write a Program to make Android Application which open the URL:https:google.com” after click on

Click Me Button (Use intent concept.)

package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

import android.net.Uri; import android.content.Intent; import android.view.View; import android.widget.Button;

public class MainActivity extends AppCompatActivity { public Button btn1;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); btn1=(Button) findViewById(R.id.mybtn);

btn1.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View view) {

Intent i=new Intent(Intent.ACTION\_VIEW, Uri.parse("https://[www.google.com](http://www.google.com/)")); startActivity(i);

}

});

}

}

1. Write a program to make Android Application to call various built in application (to Dial number, to open

http://www.amazon.com)

package com.example.yourappname; 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 {

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

findViewById(R.id.btnDial).setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View v) {

dialNumber("1234567890"); // Replace with the desired phone number

}

});

findViewById(R.id.btnOpenWebPage).setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View v) { openWebPage("[http://www.amazon.com](http://www.amazon.com/)");

}

});

}

private void dialNumber(String phoneNumber) {

Intent intent = new Intent(Intent.ACTION\_DIAL, Uri.parse("tel:" + phoneNumber)); startActivity(intent);

}

private void openWebPage(String url) {

Intent intent = new Intent(Intent.ACTION\_VIEW, Uri.parse(url)); startActivity(intent);

}}

1. Write a Program to make Android Application to open Userdetails Form when click on Show Button (Use

Intent Concept & UserDetails Form Contains Username,Password, Submit & Cancel Button).

package com.example.tybca\_13214;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

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

public class MainActivity extends AppCompatActivity { public Button mybtn;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); mybtn=(Button) findViewById(R.id.bt1);

mybtn.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View view) {

}

});

}

}

Intent i=new Intent(getApplicationContext(),userform.class);

startActivity(i);

userform.java

package com.example.tybca\_13214;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

public class userform extends AppCompatActivity { @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_userform);

}

}

1. Write a Program to Make Android Application which display alert dialog box having Yes & No Button

after click on show Button.

package com.example.tybca\_13214;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity; import android.content.DialogInterface;

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

public class MainActivity extends AppCompatActivity { public Button mybtn;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); mybtn=(Button) findViewById(R.id.bt1);

mybtn.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

AlertDialog.Builder builder=new AlertDialog.Builder(MainActivity.this); builder.setMessage("Do you want to continue"); builder.setTitle("Alert!");

builder.setCancelable(false);

builder.setPositiveButton("Yes", new DialogInterface.OnClickListener() { @Override

public void onClick(DialogInterface dialogInterface, int i) { dialogInterface.cancel();

}

});

builder.setNegativeButton("No", new DialogInterface.OnClickListener() { @Override

public void onClick(DialogInterface dialogInterface, int i) { dialogInterface.cancel();

}

});

}

}

}

});

AlertDialog alert=builder.create(); alert.show();

1. Write a program to Make Android Application which uses fragment concept to create a two fragments in

single Activity.

# Assignment No.2

1. Create a simple application which accept any message form user and display that message into second activity with the help of intent.

MainActivity.java

package com.example.tybca\_13214;

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 { public Button mybt;

public EditText myed; @Override

protected void onCreate(Bundle savedInstanceState){ super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

mybt=(Button) findViewById(R.id.bt1);

myed=(EditText) findViewById(R.id.ed1); myed.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) { String str=myed.getText().toString();

Intent i=new Intent(getApplicationContext(), second.class); i.putExtra("Message",str);

startActivity(i);

}

});

}

}

second.java

package com.example.tybca\_13214;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

import android.widget.TextView; import android.content.Intent;

public class second extends AppCompatActivity { public TextView tv;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_second); tv=(TextView) findViewById(R.id.tv1);

Intent j=getIntent();

String nstr=j.getStringExtra("Message"); tv.setText(nstr);

}

}

1. Create a simple application which accept any +ve number from the user & display its reverse number

into another activity with the help of intent.

MainActivity.java

package com.example.tybca\_13214;

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 { public Button mybt;

public EditText myed; @Override

protected void onCreate(Bundle savedInstanceState){ super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); mybt=(Button) findViewById(R.id.bt1);

myed=(EditText) findViewById(R.id.ed1);

mybt.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View view) { Integer rem;

Integer rev=0;

Integer n=Integer.parseInt(myed.getText().toString()); while(n>0){

rem=n%10; rev=rev\*10+rem; n=n/10;

}

});

}

}

}

String s=String.valueOf(rev);

Intent i=new Intent(getApplicationContext(), second.class); i.putExtra("reverse",s);

startActivity(i);

second.java

package com.example.tybca\_13214;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

import android.widget.TextView; import android.content.Intent;

public class second extends AppCompatActivity {

public TextView mytv; @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_second); mytv=(TextView) findViewById(R.id.tv1);

Intent j=getIntent();

String r=j.getStringExtra("reverse"); mytv.setText(r);

}

}

1. Create a simple application which shows use of Radio Button. When Click on Radio Button it shows

message into Toast.

MainActivity.java

package com.example.tybca\_13214;

import androidx.appcompat.app.AppCompatActivity; import android.content.Intent;

import android.os.Bundle;

import android.view.View.OnClickListener; import android.view.View;

import android.widget.RadioButton; import android.widget.Toast;

public class MainActivity extends AppCompatActivity { public RadioButton mrdo;

public RadioButton frdo; @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

mrdo = (RadioButton) findViewById(R.id.rdo1);

frdo = (RadioButton) findViewById(R.id.rdo2); mrdo.setOnClickListener(radiolistener); frdo.setOnClickListener(radiolistener);

}

private OnClickListener radiolistener=new OnClickListener(){ @Override

public void onClick(View view){

RadioButton radioButton=(RadioButton) view; Toast.makeText(MainActivity.this,radioButton.getText(), Toast.LENGTH\_LONG).show();;

}

};

}

1. Create a simple application which display simple alert dialog box having message “do you want to

continue?” with Yes & No Button.

package com.example.tybca\_13214; import android.content.DialogInterface; import android.os.Bundle;

import android.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity { @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

AlertDialog.Builder builder = new AlertDialog.Builder(this);

builder.setTitle("Confirmation"); builder.setMessage("Do you want to continue?");

builder.setPositiveButton("Yes", new DialogInterface.OnClickListener() { @Override

public void onClick(DialogInterface dialog, int which) {

}

});

builder.setNegativeButton("No", new DialogInterface.OnClickListener() { @Override

public void onClick(DialogInterface dialog, int which) {

// Do something when the user clicks the "No" button

}

});

AlertDialog dialog = builder.create(); dialog.show();

}

}

1. Create a simple application which display scroll layout of 15 Button.(use LinearLayout to show all

Button)

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

<ScrollView 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="fill\_parent" android:layout\_height="fill\_parent" android:orientation="vertical">

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button1"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button2"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button3"/>

<Button

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="Button4"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button5"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button6"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button7"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button8"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button9"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button10"/>

<Button

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content" android:text="Button11"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button12"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button13"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button14"/>

<Button

android:layout\_width="fill\_parent" android:layout\_height="wrap\_content" android:text="Button15"/>

</LinearLayout>

</ScrollView>

1. Create a simple application which creates simple userform by using TableLayout. (User form having

field Enter the user Name &, Enter User Email with login 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"

android:padding="16dp" tools:context=".MainActivity">

<TableLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:stretchColumns="1">

<TableRow>

<TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Enter the User Name:" android:paddingEnd="8dp"/>

<EditText android:id="@+id/etUserName" android:layout\_width="0dp" android:layout\_height="wrap\_content" android:layout\_weight="1"

android:hint="Username"/>

</TableRow>

<TableRow>

<TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Enter User Email:" android:paddingEnd="8dp"/>

<EditText android:id="@+id/etUserEmail" android:layout\_width="0dp" android:layout\_height="wrap\_content" android:layout\_weight="1" android:hint="Email"/>

</TableRow>

<TableRow>

<Button

android:id="@+id/btnLogin" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_gravity="center" android:text="Login"/>

</TableRow>

</TableLayout>

</LinearLayout>

1. Create a Simple application which creates and display ListView of Subject names.

package com.example.tybca\_13214;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView; import android.widget.ListView; import android.widget.ArrayAdapter; import android.widget.Adapter; import android.widget.Toast;

public class MainActivity extends AppCompatActivity { public ListView l1;

String subject[]={"Python","Java","ado.net","Android","C.programing"}; @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); l1=(ListView)findViewById(R.id.list1); ArrayAdapter<String>arr=new ArrayAdapter<String>(this,

androidx.appcompat.R.layout.support\_simple\_spinner\_dropdown\_item,subject);

l1.setAdapter(arr);

l1.setOnItemClickListener(new AdapterView.OnItemClickListener() { @Override

public void onItemClick(AdapterView<?> parent, View view, int pos, long id) { Toast.makeText(parent.getContext(),

"Item Selected"+parent.getItemAtPosition(pos).toString(), Toast.LENGTH\_LONG).show();

}

});

}

}

1. Create a simple application which creates Spinner View of Country name.

package com.example.tybca\_13214;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView; import android.widget.ArrayAdapter; import android.widget.Adapter; import android.widget.Spinner; import android.widget.Toast;

public class MainActivity extends AppCompatActivity { public Spinner sp;

String country[] = {"India", "China", "Nepal", "Bangladesh", "SriLanka"}; @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); sp=(Spinner) findViewById(R.id.sp1);

ArrayAdapter<String>arr=new ArrayAdapter<String>(this, androidx.appcompat.R.layout.support\_simple\_spinner\_dropdown\_item,

country); sp.setAdapter(arr);

sp.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() { @Override

public void onItemSelected(AdapterView<?> adapterView, View view, int i, long l) { Toast.makeText(getApplicationContext(),

"Selected Item="+adapterView.getItemAtPosition(i).toString(), Toast.LENGTH\_LONG).show();

}

@Override

public void onNothingSelected(AdapterView<?> adapterView){

}

});

}

}

1. Create a Simple application to display context menu of color name (After Long Press)

package com.example.tybca\_13214; import android.os.Bundle;

import android.view.ContextMenu; import android.view.View;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity; public class MainActivity extends AppCompatActivity {

public TextView mytv; @Override

public void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); mytv=(TextView)findViewById(R.id.tv1); registerForContextMenu(mytv);

}

@Override

public void onCreateContextMenu(ContextMenu menu, View v, ContextMenu.ContextMenuInfo menuInfo){

super.onCreateContextMenu(menu,v,menuInfo); menu.setHeaderTitle("Choose color"); menu.add(0,v.getId(),0,"Yellow");

menu.add(0,v.getId(),0,"Gray");

}

}

1. Create a Simple application to accept any number from user and display its factorial value into Toast

package com.example.tybca\_13214; import android.os.Bundle;

import android.view.View; import android.widget.Button; import android.widget.EditText; import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity; public class MainActivity extends AppCompatActivity {

public EditText editTextNumber; public Button calculateButton; @Override

public void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main); editTextNumber = findViewById(R.id.editTextNumber); calculateButton = findViewById(R.id.calculateButton);

calculateButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) { calculateFactorial();

}

});

}

public void calculateFactorial() { try {

int number = Integer.parseInt(editTextNumber.getText().toString()); long factorial = 1;

for (int i = 1; i <= number; i++) { factorial \*= i;

}

String resultMessage = "Factorial of " + number + " is " + factorial; Toast.makeText(this, resultMessage, Toast.LENGTH\_SHORT).show();

} catch (NumberFormatException e) {

Toast.makeText(this, "Please enter a valid number", Toast.LENGTH\_SHORT).show();

}}}