Android Journal

**Practical No. 1**

**Aim** :- Write an Android application with an TextView and Button. Onclick of the button the text of textview should toggle.

**Code** :-

**XML file** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context="MainActivity">

<TextView

android:id="@+id/text1"

android:layout\_width="241dp"

android:layout\_height="57dp"

android:layout\_marginTop="50dp"

android:text="@string/textdata"

android:textSize="34sp"

app:layout\_constraintBottom\_toTopOf="@+id/togbtn"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.5"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.148" />

<Button

android:id="@+id/togbtn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="158dp"

android:layout\_marginEnd="159dp"

android:layout\_marginBottom="99dp"

android:text="@string/btntxt"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.5"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/text1" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Strings.xml**

<resources>

<string name="app\_name">ToggleApp</string>

<string name="textdata">Hello World!!!</string>

<string name="btntxt">Toggle</string>

</resources>

**Java file** :- **MainActivity.java**

package com.example.toggleapp;

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 {

TextView t1;

Button b1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

t1 = findViewById(R.id.text1);

b1 = findViewById(R.id.togbtn);

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

if(t1.getText().toString().equals("Hello World!!!")) {

t1.setText("Hello Android!!!");

} else {

t1.setText("Hello World!!!");

}

}

});

}

}

**Visual Layout :-**

**Graphical user interface, application, Teams

Description automatically generated**

**Output** :-

Graphical user interface, application, Teams

Description automatically generated Graphical user interface, application, Teams

Description automatically generated

**Practical No. 2**

**Aim** :- Write an Android application with an Image View and Button. Onclick of the button the visibility of the image should toggle.

**Code** :-

**XML file** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context="MainActivity">

<ImageView

android:id="@+id/iv"

android:layout\_width="193dp"

android:layout\_height="284dp"

android:layout\_marginTop="92dp"

app:layout\_constraintBottom\_toTopOf="@+id/btn"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.0"

app:srcCompat="@drawable/rose" />

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="192dp"

android:text="@string/btntxt"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.498"

app:layout\_constraintStart\_toStartOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**String.xml**

<resources>

<string name="app\_name">ImageApp</string>

<string name="btntxt">Click Here</string>

</resources>

**Java file** :- **MainActivity.java**

package com.example.imageapp;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.ImageView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

ImageView i1;

Button b1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

i1 = findViewById(R.id.iv);

b1 = findViewById(R.id.btn);

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

if(i1.getVisibility() == View.VISIBLE){

i1.setVisibility(View.INVISIBLE);

Toast.makeText(MainActivity.this, "Image is Invisible", Toast.LENGTH\_LONG).show();

}

else{

i1.setVisibility(View.VISIBLE);

Toast.makeText(MainActivity.this, "Image is Visible", Toast.LENGTH\_LONG).show();

}

}

});

}

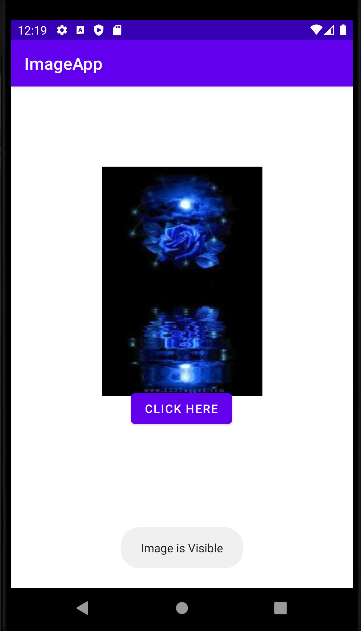
}

**Visual Layout :-**

Graphical user interface, application, Teams

Description automatically generated

**Output** :-

 Graphical user interface, application, Teams

Description automatically generated

**Practical No. 3**

**Aim** :- Write an Android application to accept two numbers from users and perform an Arithmetic operation(Addition, Subtraction, Multiplication and Division) as per user’s choice using radio button. The result should be displayed in toast.

**Code** :-

**XML file** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="#031481"

tools:context=".MainActivity">

<EditText

android:id="@+id/n1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="116dp"

android:layout\_marginTop="84dp"

android:layout\_marginEnd="85dp"

android:ems="10"

android:textColor="#DDAAOE"

android:hint="@string/first\_num"

android:inputType="textPersonName"

android:textColorHint="#DDAAGE"

app:layout\_constraintBottom\_toTopOf="@+id/n2"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.814" />

<EditText

android:id="@+id/n2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="117dp"

android:layout\_marginEnd="84dp"

android:layout\_marginBottom="48dp"

android:ems="10"

android:hint="@string/second\_num"

android:inputType="textPersonName"

android:textColor="#DDAAQE"

android:textColorHint="#DDAAOE"

app:layout\_constraintBottom\_toTopOf="@+id/radioGroup"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toStartOf="parent" />

<RadioGroup

android:id="@+id/radioGroup"

android:layout\_width="231dp"

android:layout\_height="193dp"

android:layout\_marginBottom="208dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.637"

app:layout\_constraintStart\_toStartOf="parent">

<RadioButton

android:id="@+id/r1"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="@string/add"

android:textColor="#DDAAGE" />

<RadioButton

android:id="@+id/r2"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="@string/sub"

android:textColor="#DDAAGE" />

<RadioButton

android:id="@+id/r3"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="@string/mul"

android:textColor="#DDAAGE" />

<RadioButton

android:id="@+id/r4"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="@string/div"

android:textColor="#DDAAGE" />

</RadioGroup>

</androidx.constraintlayout.widget.ConstraintLayout>

**String.xml**

<resources>

<string name="app\_name">CalculationActivity</string>

<string name="first\_num">Enter the First Number</string>

<string name="second\_num">Enter the Second Number</string>

<string name="add">Addition</string>

<string name="sub">Subtraction</string>

<string name="mul">Multiplication</string>

<string name="div">Division</string>

</resources>

**Java file** :- **MainActivity.java**

package com.example.calculationactivity;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.EditText;

import android.widget.RadioButton;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

EditText el, e2;

RadioButton add, sub, mul, div;

int num1, num2, res;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

el=findViewById(R.id.nl);

e2=findViewById(R.id.n2);

add=findViewById(R.id.r1);

sub=findViewById(R.id.r2);

mul=findViewById(R.id.r3);

div=findViewById(R.id.r4);

add.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

num1=Integer.parseInt(e1.getText().toString());

num2=Integer.parseInt(e2.getText().toString());

res=num1+num2;

Toast.makeText(context: MainActivity.this, text: "Sum: "+res, Toast.LENGTH\_LONG).show();

}

});

sub.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

num1=Integer.parseInt(e1.getText().toString());

num2=Integer.parseInt(e2.getText().toString());

res=num1-num2;

Toast.makeText(context: MainActivity.this, text: "Difference: "+res, Toast.LENGTH\_LONG).show();

}

});

mul.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

num1=Integer.parseInt(e1.getText().toString());

num2=Integer.parseInt(e2.getText().toString());

res=num1\*num2;

Toast.makeText(context: MainActivity.this, text: "Product: "+res, Toast.LENGTH\_LONG).show();

}

});

div.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

num1=Integer.parseInt(e1.getText().toString());

num2=Integer.parseInt(e2.getText().toString());

res=num1/num2;

Toast.makeText(context: MainActivity.this, text: "Quotient: "+res, Toast.LENGTH\_LONG).show();

}

});

}

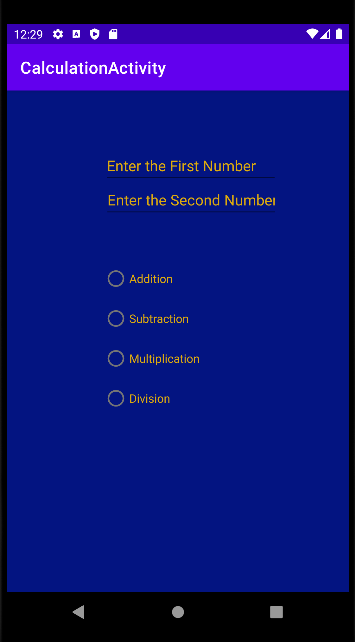
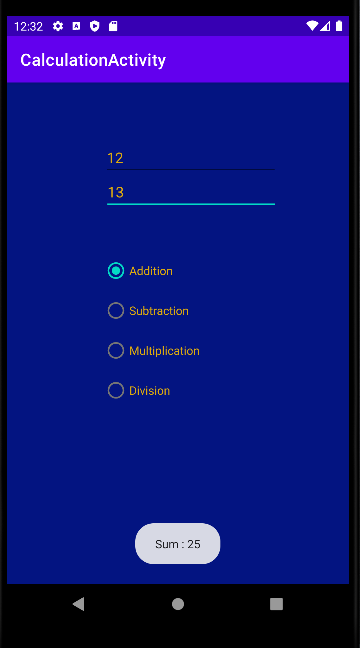
}

**Visual Layout :-**

**Graphical user interface, application

Description automatically generated**

**Output** :-

**Practical No. 4**

**Aim** :- Write an Android application with two activities namely MainActivity and SecondActivity. The username and password from MainActivity to be passed to SecondActivity and its validated and appropriate message is displayed

**Code** :-

**XML file** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="#1027BC"

android:visibility="visible"

tools:context=".MainActivity">

<EditText

android:id="@+id/name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="144dp"

android:background="#FDFAFA"

android:ems="10"

android:hint="Enter Your Username"

android:inputType="textPersonName"

android:textSize="24sp"

app:layout\_constraintBottom\_toTopOf="@+id/pass"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/pass"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="108dp"

android:background="#FBFAFA"

android:ems="10"

android:hint="Enter Your Password"

android:inputType="textPassword"

android:textSize="24sp"

app:layout\_constraintBottom\_toTopOf="@+id/btn"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.502"

app:layout\_constraintStart\_toStartOf="parent" />

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="228dp"

android:background="#80F10F"

android:text="Login"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Activity\_second.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="#1027BC"

tools:context=".SecondActivity">

<TextView

android:id="@+id/text3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:background="#FFFCFC"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottom0f="parent"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintHorizontal\_bias="8.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTop0f="parent"

app:layout\_constraintVertical\_bias="0.286" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Strings.xml**

<resources>

<string name="app\_name">LoginActivity</string>

<string name="name">Enter Your Username</string>

<string name="pass">Enter Your Password</string>

<string name="submit">Login</string>

</resources>

**Java file** :- **MainActivity.java**

package com.example.loginactivity;

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 user, pass;

Button btn;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

user = findViewById(R.id.name);

pass = findViewById(R.id.pass);

btn = findViewById(R.id.btn);

btn.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Intent intent = new Intent(MainActivity.this, SecondActivity.class);

intent.putExtra("User", user.getText().toString());

intent.putExtra("Pass", pass.getText().toString());

startActivity(intent);

}

});

}

}

**SecondActivity.java**

package com.example.loginactivity;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.widget.TextView;

import android.widget.Toast;

public class SecondActivity extends AppCompatActivity {

TextView text;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

text=findViewById(R.id.text3);

Intent intent2=getIntent();

String u = intent2.getStringExtra(name: "User");

String p = intent2.getStringExtra(name: "Pass");

if (u.equals("Pankaj") && p.equals("pan@9324")) {

text.setText("Welcome"+U);

} else {

Toast.makeText(context: this, text: "Username or Password is Incorrect!!", Toast.LENGTH\_LONG).show();

}

}

}

**Visual Layout :-**

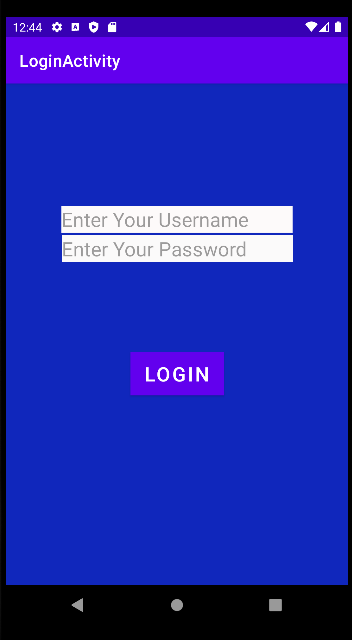
**Graphical user interface, application

Description automatically generated Icon

Description automatically generated**

**Output** :-

A screenshot of a phone

Description automatically generated with medium confidence

**Practical No. 5**

**Aim** :- Write an Android application to demonstrate Activity life cycle.

**Code** :-

**XML file** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="#FFFFFF"

tools:context=".MainActivity">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Hello World!"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Java file** :- **MainActivity.java**

package com.example.activitylifecycle;

import androidx.appcompat.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);

Toast.makeText(this, "Activity is Created", Toast.LENGTH\_LONG).show();

}

@Override

protected void onStart() {

super.onStart();

Toast.makeText(this, "Activity is Started", Toast.LENGTH\_LONG).show();

}

@Override

protected void onResume() {

super.onResume();

Toast.makeText(this, "Activity is Resumed", Toast.LENGTH\_LONG).show();

}

@Override

protected void onPause() {

super.onPause();

Toast.makeText(this, "Activity is Paused", Toast.LENGTH\_LONG).show();

}

@Override

protected void onStop() {

super.onStop();

Toast.makeText(this, "Activity is Stopped", Toast.LENGTH\_LONG).show();

}

@Override

protected void onRestart() {

super.onRestart();

Toast.makeText(this, "Activity is Restarted", Toast.LENGTH\_LONG).show();

}

@Override

protected void onDestroy() {

super.onDestroy();

Toast.makeText(this, "Activity is Destroyed", Toast.LENGTH\_LONG).show();

}

}

**Visual Layout :-**

**A picture containing chart

Description automatically generated**

**Output** :-

A picture containing text

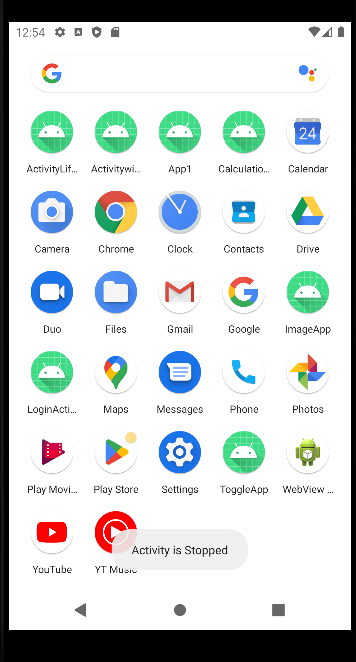
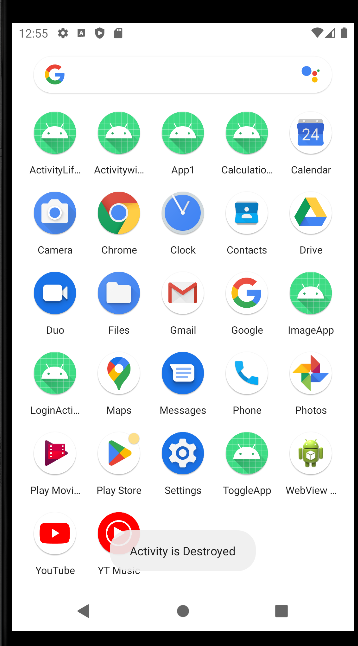
Description automatically generated A picture containing chart

Description automatically generated

A picture containing chart

Description automatically generated Graphical user interface, application, icon

Description automatically generated

A picture containing text

Description automatically generated

**Practical No. 6**

**Aim** :- Write an Android application with two activities namely MainActivity and SecondActivity. Pass two numbers from MainActivity and the in the SecondActivity find sum of the two numbers and passed back to Mainactivity.

**Code** :-

**XML File** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="@color/purple\_700"

tools:context=".MainActivity">

<EditText

android:id="@+id/num1"

android:layout\_width="234dp"

android:layout\_height="84dp"

android:layout\_marginTop="96dp"

android:ems="10"

android:hint="@string/firstnum"

android:inputType="number"

android:textColor="@color/yellow"

android:textColorHint="@color/yellow"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/num2"

android:layout\_width="234dp"

android:layout\_height="90dp"

android:layout\_marginTop="64dp"

android:ems="10"

android:hint="@string/secondnum"

android:inputType="number"

android:textColor="@color/yellow"

android:textColorHint="@color/yellow"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/num1" />

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="124dp"

android:background="#53F10F"

android:text="@string/Add"

android:textColor="@color/white"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.498"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/num2"

app:layout\_constraintVertical\_bias="0.0" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Activity\_second.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".SecondActivity">

</androidx.constraintlayout.widget.ConstraintLayout>

**Strings.xml**

<resources>

<string name="app\_name">PracticalNo6</string>

<string name="firstnum">Enter the First Number</string>

<string name="secondnum">Enter the Second Number</string>

<string name="Add">Add</string>

</resources>

**Java File** :- **MainActivity.java**

package com.example.practicalno6;

import ...

public class MainActivity extends AppCompatActivity {

EditText n1, n2;

Button b1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

n1 = findViewById(R.id.num1);

n2 = findViewById(R.id.num2);

b1 = findViewById(R.id.btn);

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Intent int1 = new Intent(MainActivity.this, SecondActivity.class);

int1.putExtra("First", Integer.parseInt(n1.getText().toString()));

int1.putExtra("Second", Integer.parseInt(n2.getText().toString()));

startActivityForResult(int1, 11);

}

});

}

@Override

protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {

super.onActivityResult(requestCode, resultCode, data);

if (requestCode == 11) {

if (resultCode == RESULT\_OK) {

int res = data.getIntExtra("Result", 0);

Toast.makeText(this, "Result: " + res, Toast.LENGTH\_LONG).show();

}

}

}

}

**SecondActivity.java**

package com.example.practicalno6;

import ...

public class SecondActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

Intent int2 = getIntent();

int firstnum = int2.getIntExtra("First", 0);

int secondnum = int2.getIntExtra("Second", 0);

int res = firstnum + secondnum;

Intent int3 = new Intent();

int3.putExtra("Result", res);

setResult(RESULT\_OK, int3);

finish();

}

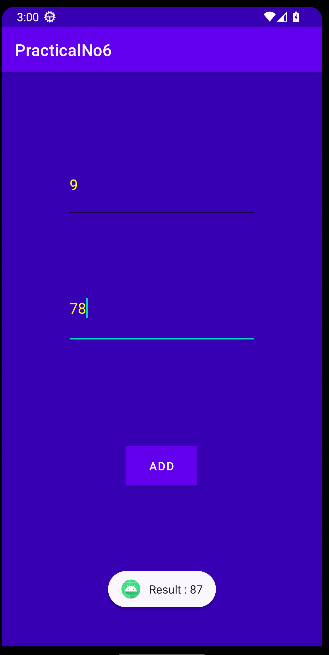
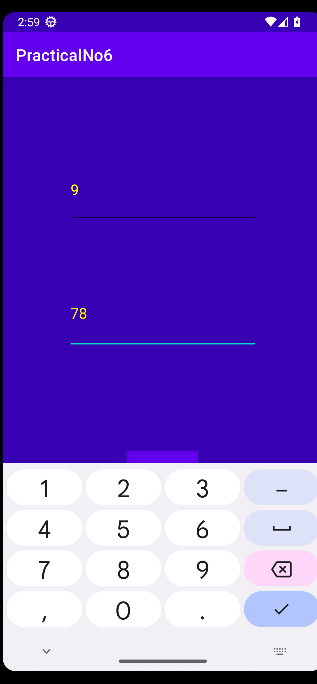
}

**Visual Layout** :-

**Graphical user interface, application

Description automatically generated**

**Output** :-



**Practical No. 7**

**Aim** :- Write an android application to demonstrate the use of Options Menu, Floating Context Menu and Contextual Action Bar Menu.

**Code** :- **Options Menu & Contextual Action Bar Menu**

**XML File** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/textaction1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Click for Contextual Action Bar"

app:layout\_constraintBottom\_toBottom0f="parent"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTop0f="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Main\_menu.xml(Options Menu)**

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

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

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

<item

android:id="@+id/cart"

android:icon="@drawable/ic\_cart"

android:visible="true"

android:orderInCategory="10"

app:showAsAction="always"

android:title="cart" />

<item

android:id="@+id/faviorites"

android:icon="@drawable/ic\_favourite"

android:title="Item"

android:orderInCategory="20"

app:showAsAction="always" />

<item

android:id="@+id/status"

android:orderInCategory="30"

android:title="Status" />

<item

android:id="@+id/contact"

android:title="Contact"

android:orderInCategory="40"

app:showAsAction="never" />

</menu>

**menu3\_main.xml(Contextual Action Bar Menu)**

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

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

<item

android:id="@+id/edit"

android:icon="@drawable/ic\_edit"

android:title="Edit"

app:showAsAction="ifRoom" />

<item

android:id="@+id/delete"

android:icon="@drawable/ic\_delete"

android:title="Delete"

app:showAsAction="ifRoom" />

<item

android:id="@+id/share"

android:icon="@drawable/ic\_share"

android:title="Share"

app:showAsAction="ifRoom" />

</menu>

**string.xml(Options Menu & Contextual Action Bar Menu)**

<resources>

<string name="app\_name">Practical8</string>

</resources>

**activity\_main.xml(Floating Action Menu)**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/actiontext1"

android:layout\_width="327dp"

android:layout\_height="66dp"

android:text="Click here to get Floating Context Menu"

android:textSize="22sp"

app:layout\_constraintBottom\_toBottom0f="parent"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTop0f="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**menu2\_main.xml(Floating Action Menu)**

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

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

<item

android:id="@+id/save"

android:title="Save" />

<item

android:id="@+id/copy"

android:title="Copy" />

<item

android:id="@+id/edit"

android:title="Edit" />

</menu>

**Java File** :-  **MainActivity.java(Options Menu and Contextual Action Bar)**

package com.example.optionsmenudemo;

import ...

public class MainActivity extends AppCompatActivity {

TextView text1;

ActionMode actionMode;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

text1 = findViewById(R.id.textaction1);

text1.setOnLongClickListener(new View.OnLongClickListener() {

@Override

public boolean onLongClick(View v) {

if (actionMode != null)

return false; // Action Mode is already activated

actionMode = MainActivity.this.startActionMode(actionModeCallback);

return true;

}

});

}

public ActionMode.Callback actionModeCallback = new ActionMode.Callback() {

@Override

public boolean onCreateActionMode(ActionMode mode, Menu menu) {

getMenuInflater().inflate(R.menu.menu3\_main, menu);

return true;

}

@Override

public boolean onPrepareActionMode(ActionMode mode, Menu menu) {

return false;

}

@Override

public boolean onActionItemClicked(ActionMode mode, MenuItem item) {

switch (item.getItemId()) {

case R.id.edit:

Toast.makeText(MainActivity.this, "Edit is being selected", Toast.LENGTH\_LONG).show();

return true;

case R.id.delete:

Toast.makeText(MainActivity.this, "Delete is being selected", Toast.LENGTH\_LONG).show();

return true;

case R.id.share:

Toast.makeText(MainActivity.this, "Share is being selected", Toast.LENGTH\_LONG).show();

return true;

default:

return false;

}

}

@Override

public void onDestroyActionMode(ActionMode mode) {

actionMode = null;

}

};

@Override

public boolean onCreateOptionsMenu(Menu menu) {

getMenuInflater().inflate(R.menu.menu\_main, menu);

return true;

}

@Override

public boolean onOptionsItemSelected(@NonNull MenuItem item) {

switch (item.getItemId()) {

case R.id.cart:

Toast.makeText(MainActivity.this, "Cart is being selected", Toast.LENGTH\_LONG).show();

return true;

case R.id.favorites:

Toast.makeText(MainActivity.this, "Favorites is being selected", Toast.LENGTH\_LONG).show();

return true;

case R.id.status:

Toast.makeText(MainActivity.this, "Status is being selected", Toast.LENGTH\_LONG).show();

return true;

case R.id.contact:

Toast.makeText(MainActivity.this, "Contact is being selected", Toast.LENGTH\_LONG).show();

return true;

default:

//Do Nothing

}

return super.onOptionsItemSelected(item);

}

}

**MainActivity.java(Floating Action Menu)**

package com.example.floatingcontextmenudemo;

import ...

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

TextView ti = (TextView) findViewById(R.id.actiontext);

registerForContextMenu(t1);

}

@Override

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

MenuInflater inflater = getMenuInflater();

inflater.inflate(R.menu.menu\_main, menu);

}

@Override

public boolean onContextItemSelected(@NonNull MenuItem item) {

switch (item.getItemId()) {

case R.id.copy:

Toast.makeText(MainActivity.this, "Copy is selected", Toast.LENGTH\_SHORT).show();

return true;

case R.id.save:

Toast.makeText(MainActivity.this, "Save is selected", Toast.LENGTH\_SHORT).show();

return true;

case R.id.edit:

Toast.makeText(MainActivity.this, "Edit is selected", Toast.LENGTH\_SHORT).show();

return true;

default:

}

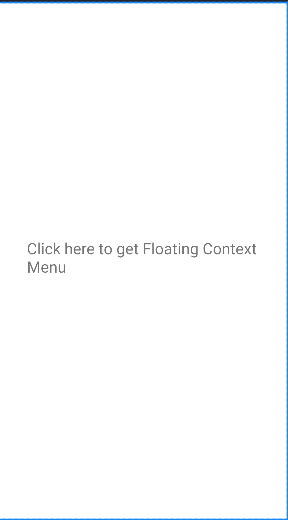
return super.onContextItemSelected(item);

}

}

**Visual Layout** :-

**avtivity\_main.xml (Floating Action Menu)**

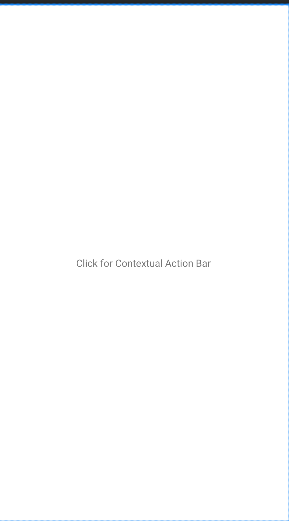
****

**menu2\_main.xml(Floating Action Menu)**

**Graphical user interface, application

Description automatically generated**

**activity\_main.xml(Options Menu and Contextual Action Bar)**

****

**menu\_main.xml(Options Menu)**

**Graphical user interface, application

Description automatically generated**

**menu3\_main.xml(Contextual Action Bar)**

**A picture containing background pattern

Description automatically generated**

**Output** :- **Options Menu and Contextual Action Bar**

**Graphical user interface

Description automatically generated with medium confidence** **Graphical user interface, text, application

Description automatically generated** Graphical user interface, text

Description automatically generated with medium confidence

**Floating Action Menu**

**Graphical user interface, text, application

Description automatically generated** **Graphical user interface, text, application

Description automatically generated**

**Practical No. 8**

**Aim** :- Write an android application to implement implicit intent to show a web url, dialer and capture image with device camera.

**Code** :-

**XML File** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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/b1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="150dp"

android:layout\_marginTop="173dp"

android:layout\_marginEnd="149dp"

android:layout\_marginBottom="49dp"

android:text="Show URL"

app:layout\_constraintBottom\_toTopOf="@+id/b2"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTop0f="parent" />

<Button

android:id="@+id/b2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="147dp"

android:layout\_marginEnd="127dp"

android:layout\_marginBottom="72dp"

android:text="Show Dialer"

app:layout\_constraintBottom\_toTopOf="@+id/b3"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toStartOf="parent" />

<Button

android:id="@+id/b3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="147dp"

android:layout\_marginEnd="106dp"

android:layout\_marginBottom="76dp"

android:text="Capture Image"

app:layout\_constraintBottom\_toTopOf="@+id/iv"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toStartOf="parent" />

<ImageView

android:id="@+id/iv"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="133dp"

android:layout\_marginEnd="150dp"

android:layout\_marginBottom="147dp"

app:layout\_constraintBottom\_toBottom0f="parent"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintStart\_toStartOf="parent"

tools:srcCompat="@tools:sample/avatars" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Strings.xml**

<resources>

<string name="app\_name">Practical No. 8</string>

<string name="btn1text">Show URL</string>

<string name="btn2text">Show Dialer</string>

<string name="btn3text">Capture Image</string>

</resources>

**Java File** :- **MainActivity.java**

package com.example.practicalno8;

import ...

public class MainActivity extends AppCompatActivity {

Button btn1, btn2, btn3;

ImageView Image1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

btn1 = findViewById(R.id.b1);

btn2 = findViewById(R.id.b2);

btn3 = findViewById(R.id.b3);

Image1 = findViewById(R.id.iv);

btn1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Intent intent1 = new Intent(Intent.ACTION\_VIEW, Uri.parse("http://www.google.com"));

startActivity(intent1);

}

});

btn2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Intent intent2 = new Intent(Intent.ACTION\_DIAL, Uri.parse("tel:+913652147896"));

startActivity(intent2);

}

});

btn3.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Intent intent3 = new Intent(MediaStore.ACTION\_IMAGE\_CAPTURE);

~~startActivityForResult~~(intent3, 11);

}

});

}

@Override

protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {

super.onActivityResult(requestCode, resultCode, data);

Bitmap bmp = (Bitmap) data.getExtras().get("data"); //data is the name of Intent

Image1.setImageBitmap(bmp);

}

}

**Output** :-

Graphical user interface, application, Teams

Description automatically generated Graphical user interface

Description automatically generated with medium confidence Graphical user interface, text, application, chat or text message

Description automatically generated Graphical user interface, application, Teams

Description automatically generated

**Practical No. 9**

**Aim** :- Write an android application to create a Biodata form to demonstrate the use of Autocomplete text view, Spinner, Date Picker and Alert Dialog

**Code** :-

**XML File** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="52dp"

android:text="@string/title"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintstart\_toStartOf="parent"

app:layout\_constraintTop\_toTopof="parent" />

<EditText

android:id="@+id/nameid"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="44dp"

android:ems="10"

android:hint="@string/nameprompt"

android:inputType="textPersonName"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottonOf="@+id/textView" />

<EditText

android:id="@+id/dateid"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="32dp"

android:ems="10"

android:hint="@string/dobprompt"

android:inputType="date"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/nameid" />

<EditText

android:id="@+id/phnid"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginEnd="8dp"

android:layout\_marginBottom="68dp"

android:ems="10"

android:hint="@string/phnprompt"

android:inputType="phone"

app:layout\_constraintBottom\_toTopOf="@+id/ctryid"

app:layout\_constraintEnd\_toStartOf="@+id/phntypeid"

app:layout\_constraintHorizontal\_bias="0.666"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/dateid"

app:layout\_constraintVertical\_bias="1.0" />

<Spinner

android:id="@+id/phntypeid"

android:layout\_width="187dp"

android:layout\_height="48dp"

android:layout\_marginStart="9dp"

android:layout\_marginTop="40dp"

app:layout\_constraintBottom\_toTopOf="@+id/ctryid"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintStart\_toEndOf="@+id/phnid"

app:layout\_constraintTop\_toBottonOf="@+id/dateid"

app:layout\_constraintVertical\_bias="0.346" />

<AutoCompleteTextView

android:id="@+id/ctryid"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="36dp"

android:hint="@string/cntryprompt"

app:layout\_constraintBottom\_toTopOf="@+id/btnid"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintHorizontal\_bias="0.498"

app:layout\_constraintStart\_toStartOf="parent" />

<Button

android:id="@+id/btnid"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="172dp"

android:text="@string/btntxt"

app:layout\_constraintBottom\_toBottom0f="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.509"

app:layout\_constraintStart\_toStartOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Strings.xml**

<resources>

<string name="app\_name">BioData</string>

<string name="title">BioData Form</string>

<string name="name prompt">Enter Name</string>

<string name="dobprompt">Enter DOB</string>

<string name="phnprompt">Enter Phone No.</string>

<string name="cntryprompt">Enter Country</string>

<string name="btntxt">Submit</string>

<string-array name="phonetype">

<item>Home</item>

<item>office</item>

<item>Mobile</item>

</string-array>

<string-array name="Countries">

<item>India</item>

<item>Indonesia</item>

<item>Nepal</item>

<item>USA</item>

<item>Ukraine</item>

<item>Singapore</item>

<item>Switzerland</item>

</string-array>

</resources>

**Java File** :- **MainActivity.java**

package com.example.biodata;

import...

public class MainActivity extends AppCompatActivity implements AdapterView.OnItemSelectedListener {

EditText Name, Phone, DOB;

AutoCompleteTextView cntry;

Spinner phntyp;

Button btn;

String msg = "";

String photype ="";

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Name = findViewById(R.id.nameid);

Phone = findViewById(R.id.phnid);

DOB = findViewById(R.id.dateid);

cntry = findViewById(R.id.ctryid);

phntyp = findViewById(R.id.phntypeid);

btn = findViewById(R.id.btnid);

ArrayAdapter<CharSequence> ad1 = ArrayAdapter.createFromResource(this, R.array.Countries, androidx.appcompat.R.layout.support\_simple\_spinner\_dropdown\_item);

cntry.setAdapter(ad1);

ArrayAdapter<CharSequence> ad2 = ArrayAdapter.createFromResource(this, R.array.phonetype, androidx.appcompat.R.layout.support\_simple\_spinner\_dropdown\_item);

if(phntyp != null){

phntyp.setOnItemSelectedListener(this);

}

ad2.setDropDownViewResource(android.R.layout.simple\_spinner\_dropdown\_item);

phntyp.setAdapter(ad2);

DOB.setOnClickListener(new View.OnClickListener() {

@RequiresApi(api = Build.VERSION\_CODES.N)

@Override

public void onClick(View view) {

DatePickerDialog dp = new DatePickerDialog(MainActivity.this, themeResid);

dp.setOnDateSetListener(new DatePickerDialog.OnDateSetListener() {

@Override

public void onDateSet(DatePicker datePicker, int i, int 11, int 12) {

//1 year, 11 = month, 12 = day

int m = 11 + 1; //it is in integer which starts with 0 so we need to add 11-1

DOB.setText(12+"/"+m+"/"+1);

}

});

dp.show(); // write it once dp.setOnDateSetListener closes

}

});

btn.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

msg = "You have entered the following information \n";

msg += "Name: " + Name.getText().toString();

msg += "\n Date of Birth: " + DOB.getText().toString();

msg += "\n Phone No: " + Phone.getText().toString();

msg += "\n Phone type: " + photype; // from onItemSelected so no toString msg

msg += "\n Country: " + cntry.getText().toString();

msg += "\n Please Conform";

AlertDialog.Builder alertBuilder = new AlertDialog.Builder(MainActivity.this);

alertBuilder.setTitle("Confirmation Message");

alertBuilder.setMessage(msg);

alertBuilder.setPositiveButton("Yes", new DialogInterface.OnClickListener() {

@Override

public void onClick(DialogInterface dialogInterface, int i) {

Toast.makeText(MainActivity.this, "User Data Confirmed", Toast.LENGTH\_LONG).show();

}

});

alertBuilder.setNegativeButton("No", new DialogInterface.OnClickListener() {

@Override

public void onClick(DialogInterface dialogInterface, int i) {

Toast.makeText(MainActivity.this, "The changes are not stored", Toast.LENGTH\_LONG).show();

}

});

AlertDialog ad = alertBuilder.create();

ad.show();

}

});

}

@Override

public void onItemSelected(AdapterView<?> adapterView, View view, int i, long id) {

photype = adapterView.getItemAtPosition(i).toString();

}

@Override

public void onNothingSelected(AdapterView<?> adapterView) {

}

}

**Visual Layout** :-

Graphical user interface, application

Description automatically generated

**Output** :-

Graphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generated

**Practical No. 10**

**Aim** :- Write an android application to demonstrate broadcast and broadcast receiver.

**Code** :-

**XML File** :- AndroidManifest.xml(Code to be added)

<receiver

android:name=". My Receiver"

android:enabled="true"

android:exported="true">

</receiver>

**activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Send Custom Broadcast"

app:layout\_constraintBottom\_toBottom0f="parent"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTop0f="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Strings.xml**

<resources>

<string name="app\_name">Broadcast</string>

<string name="btn\_txt">Send Custom Broadcast</string

</resources>

**Java File** :- **My\_Receiver.java**

package com.example.broadcast;

import ...

public class MyReceiver extends BroadcastReceiver {

private static final String ACTION\_CUSTOM\_BROADCAST = "ACTION\_CUSTOM\_BROADCAST";

@Override

public void onReceive(Context context, Intent intent) {

String intentAction = intent.getAction();

if (intentAction != null) {

String msg = "Unknown Intent";

switch (intentAction) {

case Intent.ACTION\_BATTERY\_LOW:

msg = "Battery Low!!";

break;

case Intent.ACTION\_POWER\_CONNECTED:

msg = "Power Connected!!";

break;

case Intent.ACTION\_POWER\_DISCONNECTED:

msg = "Power Disconnected!!";

break;

case ACTION\_CUSTOM\_BROADCAST:

msg = "Custom Broadcast Received!!";

break;

}

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

}

}

}

**MainActivity.java**

package com.example.broadcast;

import...

public class MainActivity extends AppCompatActivity {

Button btn;

private MyReceiver mReceiver = new MyReceiver();

private static final String ACTION\_CUSTOM\_BROADCAST = "ACTION\_CUSTOM\_BROADCAST";

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

IntentFilter filter = new IntentFilter();

filter.addAction(Intent.ACTION\_POWER\_CONNECTED);

filter.addAction(Intent.ACTION\_BATTERY\_LOW);

filter.addAction(Intent.ACTION\_POWER\_DISCONNECTED);

this.registerReceiver(mReceiver, filter);

LocalBroadcastManager.getInstance(this).registerReceiver(mReceiver, new IntentFilter(ACTION\_CUSTOM\_BROADCAST));

btn = findViewById(R.id.button);

btn.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Intent customintent = new Intent(ACTION\_CUSTOM\_BROADCAST);

LocalBroadcastManager.getInstance(MainActivity.this).sendBroadcast(customintent);

}

});

}

@Override

protected void onDestroy() {

this.unregisterReceiver(mReceiver);

LocalBroadcastManager.getInstance(this).unregisterReceiver(mReceiver);

super.onDestroy();

}

}

**Visual layout** :-

Graphical user interface, text, application

Description automatically generated

**Output** :-

Graphical user interface, text, application

Description automatically generatedGraphical user interface, text, application

Description automatically generated

**Practical No. 11**

**Aim** :- Write an android application to demonstrate notification from an app

**Code** :-

**XML File** :- **AndriodManifest.xml (Code to be added)**

<uses-permission android:name="android.permission. POST\_NOTIFICATIONS ></uses-permission>

**Activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Button

android:id="@+id/Button"

android:layout\_width="167dp"

android:layout\_height="59dp"

android:text="Notify Mes"

app:layout\_constraintBottom\_toBottom0f="parent"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTop0f="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Activity\_second.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".SecondActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="170dp"

android:layout\_height="68dp"

android:text="Notification received"

app:layout\_constraintBottom\_toBottom0f="parent"

app:layout\_constraintEnd\_toEnd0f="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTop0f="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Java File** :- **MainActivity.java**

package com.example.notification;

Import...

public class MainActivity extends AppCompatActivity {

Button b1;

NotificationManager notificationManager;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

notificationManager=(NotificationManager) getSystemService(NOTIFICATION\_SERVICE);

if (Build.VERSION.SDK\_INT>Build.VERSION\_CODES.0){

NotificationChannel notificationChannel = new NotificationChannel(id: "Notificationi", name: "PracticalNo11\_Notification", NotificationManager.IMPORTANCE\_DEFAULT);

notificationChannel.enableVibration(true);

notificationChannel.enableLights(true);

notificationChannel.setDescription("You have been notified");

notificationManager.createNotificationChannel(notificationChannel);

}

b1 = findViewById(R.id.Button);

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Intent intent=new Intent( packageContext MainActivity.this, SecondActivity.class);

PendingIntent pendingIntent = PendingIntent.getActivity(context: MainActivity.this, requestCode: 11, intent, PendingIntent.FLAG\_UPDATE\_CURRENT);

NotificationCompat.Builder nbuilder = new NotificationCompat.Builder(context: MainActivity.this, channelid "Notification")

.setContentTitle("You have been notified")

.setContentText("This is the your notification text")

.setSmallIcon(R.drawable.ic\_setting)

.setContentIntent(pendingIntent)

.setSound(RingtoneManager.getDefaultUri(RingtoneManager.TYPE\_NOTIFICATION))

.setAutoCancel(true);

notificationManager.notify(id: 11, nbuilder.build());

}

});

}

}

**SecondActivity.java**

package com.example.notification;

import...

public class SecondActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

Toast.makeText(context this, text: "Notification received", Toast.LENGTH\_SHORT).show();

}

}

**Output** :-

Graphical user interface, application, Teams

Description automatically generatedGraphical user interface, application, Teams

Description automatically generatedRadar chart

Description automatically generated with low confidence

**Practical No. 12**

**Aim** :- Write an android application to demonstrate the use of SQLite databases.

**Code** :-

**XML File** :- **activity\_main.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<EditText

android:id="@+id/name\_id"

android:layout\_width="161dp"

android:layout\_height="51dp"

android:layout\_marginBottom="124dp"

android:hint="Enter Name"

android:textSize="24sp"

app:layout\_constraintBottom\_toTopOf="@+id/view"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/view"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="348dp"

android:text="View"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.05"

app:layout\_constraintStart\_toStartOf="parent" />

<Button

android:id="@+id/Save"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="200dp"

android:layout\_marginTop="216dp"

android:text="Save"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.356"

app:layout\_constraintStart\_toStartOf="@+id/view"

app:layout\_constraintTop\_toBottomOf="@+id/name\_id"

tools:ignore="UnknownId" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Java File** :- **MySqliteOpenHelper.java**

package com.example.databaseapp;

import ...

public class MySqliteOpenHelper extends SQLiteOpenHelper {

private static final int DATABASE\_VERSION = 1;

private static final String DATABASE\_NAME = "StudentsData";

public MySqliteOpenHelper(@Nullable Context context) {

super(context, DATABASE\_NAME, null, DATABASE\_VERSION);

}

@Override

public void onCreate(SQLiteDatabase sqLiteDatabase) {

String query1 = "CREATE TABLE STUDENTS (ID INTEGER PRIMARY KEY AUTOINCREMENT, NAME TEXT)";

sqLiteDatabase.execSQL(query1);

}

@Override

public void onUpgrade(SQLiteDatabase sqLiteDatabase, int oldVersion, int newVersion) {

String query2 = "DROP TABLE IF EXISTS STUDENTS";

sqLiteDatabase.execSQL(query2);

onCreate(sqLiteDatabase);

}

}

**MainActivity.java**

package com.example.databaseapp;

import..

public class MainActivity extends AppCompatActivity {

TextView el;

Button b1, b2;

MySqliteOpenHelper mysql;

SQLiteDatabase db;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

el = findViewById(R.id.name\_id);

b1 = findViewById(R.id.Save);

b2 = findViewById(R.id.view);

mysql = new MySqliteOpenHelper(this);

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String data = el.getText().toString();

db= mysql.getWritableDatabase();

String q1= "INSERT INTO STUDENTS (NAME) VALUES ('"+data+"')";

db.execSQL(q1);

Toast.makeText(MainActivity.this, "The record is inserted", Toast.LENGTH\_SHORT).show();

}

});

b2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

db = mysql.getReadableDatabase();

String q2= "SELECT \* FROM STUDENTS";

Cursor cursor = db.rawQuery(q2, null);

while(cursor.moveToNext()){

String n = cursor.getString(1);

Toast.makeText(MainActivity.this, "Name :"+n, Toast.LENGTH\_SHORT).show();

}

}

});

}

}

**Visual Layout** :-

Graphical user interface, application, Teams

Description automatically generated

**Output** :-

Graphical user interface, application, Teams

Description automatically generated

Graphical user interface, application, Teams

Description automatically generatedGraphical user interface, application, Teams

Description automatically generated