FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY (FISAT)TM

**HORMIS NAGAR, MOOKKANNOOR**

# ANGAMALY-683577

‘**FOCUS ON EXCELLENCE’** **MOBILE APPLICATION DEVELOPMENT**

# LAB

………………………………………………

# LABORATORY RECORD

## Name: KRISHNAJA UNNIKRISHNAN

**Branch: MASTER OF COMPUTER APPLICATION**

**Semester: 3 Batch: B Roll No: 10**



# FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY (FISAT)TM

**HORMIS NAGAR, MOOKKANNOOR**

# ANGAMALY-683577

‘**FOCUS ON EXCELLENCE’**

## Name : KRISHNAJA UNNIKRISHNAN

**Branch : MASTER OF COMPUTER APPLICATION**

## Semester : 3 Roll No: 10

**University Exam.Reg. No:**

**CERTIFICATE**

*This is to certify that this is a Bonafide record of the Practical work done and submitted to Kerala Technological University in partial fulfillment for the award of the Master Of Computer Applications is a record of the original research work done by* ***KRISHNAJA UNNIKRISHNAN*** *in the* ***Mobile Application Development*** *Laboratory of the Federal Institute of Science and Technology during the academic year 2021-2022.*

Signature of Staff in Charge Signature of H.O.D

Name: Name:

Date:

## Date of University practical examination ………………………

### Signature of Signature of

Internal Examiner External Examiner

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CONTENT** | | | | | |
| **SI**  **No** | **Date :** | **Name of Experiment:** | **Page No:** | **Signature of Staff –In –**  **Charge:** |  |
| 1 | 18/11/2021 | Create a simple calculator | 1 |  |
| 2 | 25/11/2021 | Concatenate the two string(The resulted string color is green). | 6 |  |
| 3 | 02/12/2021 | Factorial of given number | 10 |  |
| 4 | 09/12/2021 | Draw different shape and fill with different color | 14 |  |
| 5 | 16/12/2021 | Draw smiley | 16 |  |
| 6 | 06/01/2022 | Intents | 22 |  |
| 7 | 20/01/2022 | Storing data into internal phone memory | 27 |  |
|  | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | | | |
| 8 | 03/02/2022 | Demonstrate GrideView | 34 |  |  |
| 9 | 03/02/2022 | Demonstrate ImageView and GrideView | 37 |  |
| 10 | 10/02/2022 | Demonstration of Toggle button | 43 |  |
| 11 | 10/02/2022 | Demonstration of Option menu | 46 |  |
| 12 | 17/02/2022 | Spinner widget | 50 |  |
| 13 | 24/02/2022 | Database application using SQLite | 55 |  |
|  | | | | | |

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 1

### PROGRAM 1:

Create a Simple Calculator for demonstrating the basic arithmetic operations ( + , - , \* , /)

## PROCEDURE:

step 1: Start

step 2: Create the xml file .Drag and drop the 2 edittext and 4 button for the arithemetic calculation such as adition, subtraction,division, multiplication.then drag and drop the textview field to view the calculated result.

Step 3: Create the java code file to perform the calculation its initialize the edit Test,button and textview then create the object of each one.

Step 4: Read the two number and it pass to the switch case do the neccesoryoperation. Step 5: Display the result on the textview field.Step

6: Stop.

## MainActivity.java:

package com.example.calculator;

import android.support.v7.app.AppCompatActivity; import android.os.Bundle;

import android.text.TextUtils; import android.view.View; import android.widget.Button; import android.widget.EditText; import android.widget.TextView;

public class MainActivity extends AppCompatActivity implements View.OnClickListener{

EditText etNum1; EditText etNum2;

Button btnAdd; Button btnSub; Button btnMult; Button btnDiv;

TextView tvResult; String oper = "";

#### /\*\* Called when the activity is first created. \*/

@Override

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

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 2

#### // find the elements

etNum1 = (EditText) findViewById(R.id.*etNum1*); etNum2 = (EditText) findViewById(R.id.*etNum2*);

btnAdd = (Button) findViewById(R.id.*btnAdd*); btnSub = (Button) findViewById(R.id.*btnSub*); btnMult = (Button) findViewById(R.id.*btnMult*); btnDiv = (Button) findViewById(R.id.*btnDiv*);

tvResult = (TextView) findViewById(R.id.*tvResult*);

*// set a listener* btnAdd.setOnClickListener(this); btnSub.setOnClickListener(this); btnMult.setOnClickListener(this); btnDiv.setOnClickListener(this);

}

@Override

public void onClick(View v) {

#### // TODO Auto-generated method stub

float num1 = 0; float num2 = 0; float result = 0;

#### // check if the fields are empty

if (TextUtils.*isEmpty*(etNum1.getText().toString())

|| TextUtils.*isEmpty*(etNum2.getText().toString())) { return;

}

*// read EditText and fill variables with numbers* num1 = Float.*parseFloat*(etNum1.getText().toString()); num2 = Float.*parseFloat*(etNum2.getText().toString());

#### // defines the button that has been clicked and performs the corresponding operation

*// write operation into oper, we will use it later for output*

switch (v.getId()) { case R.id.*btnAdd*:

oper = "+";

result = num1 + num2; break;

case R.id.*btnSub*: oper = "-";

result = num1 - num2; break;

case R.id.*btnMult*: oper = "\*";

result = num1 \* num2;

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 3

break;

case R.id.*btnDiv*: oper = "/";

result = num1 / num2; break;

default:

break;

}

#### // form the output line

tvResult.setText(num1 + " " + oper + " " + num2 + " = " + result);

}

}

## Activity\_main.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:weightSum="1">

<LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/linearLayout1" android:layout\_marginLeft="10pt" android:layout\_marginRight="10pt" android:layout\_marginTop="3pt">

<EditText android:layout\_weight="1"

android:layout\_height="wrap\_content" android:layout\_marginRight="5pt" android:id="@+id/etNum1" android:layout\_width="match\_parent" android:inputType="numberDecimal">

</EditText>

<EditText android:layout\_height="wrap\_content" android:layout\_weight="1" android:layout\_marginLeft="5pt" android:id="@+id/etNum2" android:layout\_width="match\_parent" android:inputType="numberDecimal">

</EditText>

</LinearLayout>

<LinearLayout android:layout\_width="match\_parent"

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 4

android:layout\_height="wrap\_content" android:id="@+id/linearLayout2" android:layout\_marginTop="3pt" android:layout\_marginLeft="5pt" android:layout\_marginRight="5pt">

<Button

android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="+" android:textSize="8pt" android:id="@+id/btnAdd">

</Button>

<Button

android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="- " android:textSize="8pt" android:id="@+id/btnSub">

</Button>

<Button

android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="\*" android:textSize="8pt" android:id="@+id/btnMult">

</Button>

<Button

android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="/" android:textSize="8pt" android:id="@+id/btnDiv">

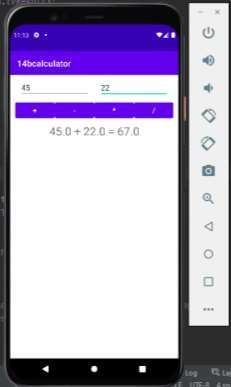
</Button>

</LinearLayout>

<TextView android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_marginLeft="5pt" android:layout\_marginRight="5pt" android:textSize="12pt" android:layout\_marginTop="3pt" android:id="@+id/tvResult" android:gravity="center\_horizontal" android:layout\_weight="0.07">

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 5



</TextView>

</LinearLayout>

## OUTPUT:

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 6

### PROGRAM 2:

Create an application to concatenate two given Strings. (Consider changing the color ofthe result string to GREEN\*)

## Procedure:

Step 1: Start.

Step 2: Create a XML file. Drag and drop 2 EditText to enter 2 strings and 1 Button to concatenate the strings. Then drag and drop a TextView to view the concatenatedstring.

Step 3: Create a JAVA file to perform concatenation. First initialize the 2 EditText, Buttonand TextView then create object for each one.

Step 4: Read 2 strings and perform concatenation (‘+’) operation with those strings. Step 5: Display the concatenated string on the TextView field.Step 6:

Stop.

## MainActivity.java:

package com.example.a14bstrconcat; import android.os.Bundle;

import android.text.TextUtils; import android.view.View; import android.widget.Button; import android.widget.EditText; import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity implements View.OnClickListener{EditText etNum11;

EditText etNum22; Button btnconcat; TextView tvResult; String oper = "";

/\*\* Called when the activity is first created. \*/

FEDERAL INSTITUTION OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 7

@Override

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

// find the elements

etNum11= (EditText) findViewById(R.id.etNum11); etNum22= (EditText) findViewById(R.id.etNum22);

btnconcat = (Button) findViewById(R.id.btnconcat);tvResult = (TextView) findViewById(R.id.tvResult);

// set a listener btnconcat.setOnClickListener(this);

}

@Override

public void onClick(View v) {

// TODO Auto-generated method stub String S1 = "";

String S2 = "";

// check if the fields are empty

if (TextUtils.isEmpty(etNum11.getText().toString())

|| TextUtils.isEmpty(etNum22.getText().toString())) { return;

}

// read EditText and fill variables with numbersS1 = etNum11.getText().toString();

S2 = etNum22.getText().toString();

// form the output line tvResult.setText(S1 +" "+S2);

}

}

## Activity\_main.xml:

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

<LinearLayout xmlns:android[="h](http://schemas.android.com/apk/res/android)tt[p://schemas.android.com/apk/res/android](http://schemas.android.com/apk/res/android)" android:orientation="vertical" android:layout\_width="fill\_parent" android:layout\_height="fill\_parent"

android:weightSum="1">

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 8

<LinearLayout android:id="@+id/linearLayout11" android:layout\_width="wrap\_content" android:layout\_height="159dp" android:layout\_marginLeft="10pt" android:layout\_marginTop="3pt" android:layout\_marginRight="10pt"

android:orientation="horizontal">

<EditText android:id="@+id/etNum11"

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:ems="10" android:inputType="textPersonName" android:text="Name" />

<EditText android:id="@+id/etNum22" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:ems="10" android:inputType="textPersonName" android:text="Name" />

</LinearLayout>

<LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/linearLayout2" android:layout\_marginTop="3pt" android:layout\_marginLeft="5pt" android:layout\_marginRight="5pt">

<Button

android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_weight="1" android:text="+" android:textSize="8pt" android:id="@+id/btnconcat">

</Button>

</LinearLayout>

<TextView android:layout\_height="wrap\_content" android:layout\_width="match\_parent" android:layout\_marginLeft="5pt" android:layout\_marginRight="5pt"

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 9



android:textSize="12pt" android:layout\_marginTop="3pt" android:id="@+id/tvResult" android:gravity="center\_horizontal"

android:layout\_weight="0.07">

</TextView>

</LinearLayout>

## OUTPUT:

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 10

### PROGRAM 3:

Create an android application to find the factorial of a given number.

## Procedure:

Step 1: Start

Step 2: Create a XML file. Drag and drop a EditText to enter the number, a Button to findfactorial and a TextView to display the result.

Step 3: Create a JAVA file to find factorial. First initialize the the EditText, Button andTextView then create object for each one.

Step 4: Read the number and perform necessary operations to find factorial.Step 5: Display the result on the TextView field.

Step 6: Stop.

## MainActivity.java

package com.example.factorial;

import androidx.appcompat.app.AppCompatActivity;import android.view.View;import android.widget.Button;

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

public class MainActivity extends AppCompatActivity implementsView.OnClickListener {EditText etNum1; Button btnAdd; TextView tvResult;String oper = "";

#### /\*\*

*\* Called when the activity is first created.*

#### \*/

@Override

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

#### // find the elements

etNum1 = (EditText) findViewById(R.id.*etNum1*);

btnAdd = (Button) findViewById(R.id.*btnAdd*); tvResult = (TextView) findViewById(R.id.*tvResult*);

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 11

#### // set a listener

btnAdd.setOnClickListener(this);

}

@Override

public void onClick(View v) {

#### // TODO Auto-generated method stud

float num1 = 0; float fact = 1; float result = 0;

#### // check if the fields are empty

num1 = Float.*parseFloat*(etNum1.getText().toString());

#### // read EditText and fill variables with numbers

*// defines the button that has been clicked and performs the correspondingoperation*

#### // write operation into oper, we will use it later for output

switch (v.getId()) { case R.id.*btnAdd*: oper = "+";

for (int i = 1; i <= num1; i++) {fact = fact \* i;

}

result = fact;break; default:

break;

}

#### // form the output line

tvResult.setText("Factorial of" + " " + num1 + " = " + result);

}

}

## Activity\_main.xml

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

<LinearLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:layout\_width="fill\_parent" android:layout\_height="fill\_parent" android:orientation="vertical" android:weightSum="1">

<LinearLayout

android:id="@+id/linearLayout1" android:layout\_width="match\_parent"

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 12

android:layout\_height="wrap\_content" android:layout\_marginLeft="10pt" android:layout\_marginTop="3pt" android:layout\_marginRight="10pt">

<EditText

android:id="@+id/etNum1" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginRight="5pt" android:layout\_weight="1" android:inputType="numberDecimal"></EditText>

</LinearLayout>

<LinearLayout

android:id="@+id/linearLayout2" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginLeft="5pt" android:layout\_marginTop="3pt” android:layout\_marginRight="5pt">

<Button

android:id="@+id/btnAdd" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_weight="1" android:text="RESULT"android:textSize="8pt"></Button>

</LinearLayout>

<TextView

android:id="@+id/tvResult" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginLeft="5pt" android:layout\_marginTop="3pt" android:layout\_marginRight="5pt" android:layout\_weight="0.07" android:gravity="center\_horizontal" android:textSize="12pt"></TextView>

</LinearLayout>

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 13



## OUTPUT :

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 14

### PROGRAM 4:

Develop a canvas to draw different shapes and to fill the shapeswith different colors.

## Procedure:

Step 1: Start.

Step 2: Create 2 JAVA files. CustomView.java for create the shape and set colour it usingpaint and MainActivity.java for display the shape using setContentView.

Step 3: Enter the required measures for the shape and create it then set colour for theshape. Step 4: Display the shape using setContentView in MainActivity.java file.Step 5:

Stop

## MainActivity.java

package com.example.shape;

import androidx.appcompat.app.AppCompatActivity;import android.os.Bundle;public class MainActivity extends AppCompatActivity {@Override

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

setContentView(new com.example.shape.CustomView(this));

}

}

## CustomView.java

package com.example.shape;

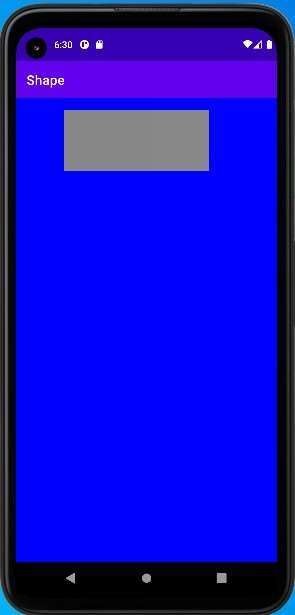
import android.content.Context;import android.graphics.Canvas;import android.graphics.Color; import android.graphics.Paint; import android.graphics.Rect;import android.view.View;

public class CustomView extends View {private Rect rectangle; private Paint paint, p1;

public CustomView(Context context) {super(context);int x

= 200;int y = 50;

int width = 800; int height = 300;



#### // create a rectangle that we'll draw later

rectangle = new Rect(x, y, width, height);

*// create the Paint and set its color*paint = new Paint(); paint.setColor(Color.*GRAY*);

p1 = new Paint(); p1.setColor(Color.*RED*);

}

@Override

protected void onDraw(Canvas canvas) {canvas.drawColor(Color.*BLUE*); canvas.drawRect(rectangle, paint);

}

}

## OUTPUT :

### PROGRAM 5:

Create an application to show happy face smiley and sad face smiley to demonstrate buttonclick Events.

## Procedure:

Step 1: Start

Step 2: Create two activity with buttons.

Step 3: Create a main activity JAVA file which direct the page to another page on the click ofthe button from the activity main.

Step 4: Create another activity java smily with to navigate with the onclick listener to mainactivity page.

Step 5: Create face view class two draw the smily with dimension for happy face with canva drawColor,draw circle,Oval,drawArch.

Step 6: Create another face view to draw the smily with dimensions for sad face with canva drawColor,draw circle,Oval,drawArch.

Step 7: Stop.

## MainActivity.java

package com.example.a5happyface;

import androidx.appcompat.app.AppCompatActivity;import android.content.Intent; import android.os.Bundle; import android.view.View; import android.widget.Button;

public class MainActivity extends AppCompatActivity {Button button; @Override

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

= (Button) findViewById(R.id.*button*); button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {openNewActivity();

}

});

}

public void openNewActivity() {

Intent intent = new Intent(this, MainActivity2.class);startActivity(intent);

}

}

## Activity\_main.xml

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

<RelativeLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"android:orientation="vertical" tools:context=".MainActivity">

<com.example.a5happyface.FaceView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" />

<Button

android:id="@+id/button" android:layout\_width="match\_parent"

android:layout\_height="wrap\_content" android:text="---> Sad

Face" />

</RelativeLayout>

**MainActivity2.java**

package com.example.a5happyface;

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

import androidx.appcompat.app.AppCompatActivity; public class MainActivity2 extends AppCompatActivity {

Button button1;@Override

protected void onCreate(Bundle savedInstanceState)

{ super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main2*); button1

= (Button) findViewById(R.id.*button1*); button1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {openNewActivity();

}

});

}

public void openNewActivity(){

Intent intent1 = new Intent(this,MainActivity.class);startActivity(intent1);

}

}

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 18

## Activity\_main2.xml

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

<RelativeLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:layout\_width="match\_parent"

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

<com.example.a5happyface.FaceView2 android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" />

<Button

android:id="@+id/button1" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:text="---> Happy Face" />

</RelativeLayout>

## FaceView.java

package com.example.a5happyface;

import android.content.Context; import android.graphics.Canvas; import android.graphics.Color; import android.graphics.Paint; import android.graphics.RectF; importandroid.util.AttributeSet;import android.view.View;

public class FaceView extends View {

private static final String *COLOR\_HEX* = "WHITE";private final Paint mPaint; private float xPosition; private float yPosition; privatefloat radius; private float strokeWidth

= 20; private float defaultScale = 0.90f; privatefloat eyeRadius = 60; private float

eyeYPosition; private float leftEyeXPosition;private float rightEyeXPosition;public FaceView(Context context, AttributeSet attrs) {super(context, attrs); mPaint =

new Paint(); mPaint.setAntiAlias(true);

}

@Override

protected void onDraw(Canvas canvas) { super.onDraw(canvas); mPaint.setColor(Color.*parseColor*(*COLOR\_HEX*)); mPaint.setStrokeWidth(strokeWidth); mPaint.setStyle(Paint.Style.*STROKE*); canvas.drawPaint(mPaint); canvas.drawColor(Color.*BLACK*);

#### // drawing outer circle

*// lets setup x cord, y cord, radius*

#### // x, y position should point to center. //radius should be half the width

*/ height*

xPosition = getMeasuredWidth() / 2;yPosition = getMeasuredHeight() / 2;radius = xPosition < yPosition ? xPosition : yPosition ;radius \*= defaultScale; canvas.drawCircle(xPosition, yPosition, radius, mPaint);

#### // Drawing Eyes.

*// lets find eye y position*

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 19

eyeYPosition = (float) (yPosition / 1.2);

#### // lets find eye x position

leftEyeXPosition = xPosition < yPosition ? xPosition / 2 : (float)(xPosition / 1.3);

#### // lets find right eye x position

2 :

mPaint);

rightEyeXPosition = xPosition < yPosition ? xPosition + xPosition /

xPosition + xPosition / 4;

#### // left eye

canvas.drawCircle(leftEyeXPosition, eyeYPosition, eyeRadius,

#### // right eye

canvas.drawCircle(rightEyeXPosition, eyeYPosition, eyeRadius,mPaint);

#### // lets draw mouth.

RectF oval = new RectF(leftEyeXPosition, yPosition + yPosition / 12,rightEyeXPosition, (float) (yPosition + yPosition / 2.5));

#### // left top rightbottom

canvas.drawArc(oval, 10, 150, false, mPaint); *// happy*

*face.*

## FaceView2.java

package com.example.a5happyface;

import android.content.Context; import android.graphics.Canvas; import android.graphics.Color; import android.graphics.Paint; import android.graphics.RectF; importandroid.util.AttributeSet;import android.view.View;

public class FaceView2 extends View {

private static final String *COLOR\_HEX* = "WHITE";private final Paint mPaint; private float xPosition; private float yPosition; privatefloat radius; private float strokeWidth

= 20; private float defaultScale = 0.90f; privatefloat eyeRadius = 60; private float

eyeYPosition; private float leftEyeXPosition;private float rightEyeXPosition;public FaceView2(Context context, AttributeSet attrs)

{ super(context, attrs); mPaint = new Paint(); mPaint.setAntiAlias(true);

}

@Override

protected void onDraw(Canvas canvas) { super.onDraw(canvas); mPaint.setColor(Color.*parseColor*(*COLOR\_HEX*)); mPaint.setStrokeWidth(strokeWidth); mPaint.setStyle(Paint.Style.*STROKE*); canvas.drawPaint(mPaint); canvas.drawColor(Color.*BLACK*);

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 20

#### // drawing outer circle

*// lets setup x cord, y cord, radius*

#### // x, y position should point to center.

*// radius should be half the width / height* xPosition = getMeasuredWidth() / 2; yPosition = getMeasuredHeight() / 2;

radius = xPosition < yPosition ? xPosition : yPosition ;radius \*= defaultScale; canvas.drawCircle(xPosition, yPosition, radius, mPaint);

#### // Drawing Eyes.

*// lets find eye y position*

eyeYPosition = (float) (yPosition / 1.2);

#### // lets find eye x position

leftEyeXPosition = xPosition < yPosition ? xPosition / 2 : (float)(xPosition / 1.3);

#### // lets find right eye x position

rightEyeXPosition = xPosition < yPosition ? xPosition + xPositio

/ 2 :

xPosition + xPosition / 4;

#### // left eye

canvas.drawCircle(leftEyeXPosition, eyeYPosition, eyeRadius,

mPaint);

#### // right eye

canvas.drawCircle(rightEyeXPosition, eyeYPosition, eyeRadius,mPaint);

#### // lets draw mouth.

RectF oval = new RectF(leftEyeXPosition, yPosition + yPosition /

rightEyeXPosition, (float) (yPosition + yPosition / 2)); *//left top right bottom*

canvas.drawArc(oval, 200, 140, false, mPaint); *// sad face.*

}

}

DEPARTMENT OF COMPUTER APPLICATIONS Page | 21



## OUTPUT:

FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 22

### PROGRAM 6:

Create an application to demonstrate the use of Intents to communicate between different activity.

## Procedures:

**Implicit intent**

Step1:create Xml file and Java file.

Step2:Open activity\_main.xml file and add editText to input

text and button to open web page in a constraint layout.Alsoadd IDs for each component.

Step3:Open MainActivity.java file and instantiate the button

created in the xml file using findViewById() method.This metodbinds the created object to the UI components with the help ofassigned ID.

Step4:To display toast message,first add listener on button and this button will open webpage.

Step5:Create string type variable to store the value of EditText.Value is accepted and converted to string.

Step7:Create an intent object Mainactivity.java class to of the webpage.

Step8:The start activity() method starts to call a webpage for opening specified by intent.

Explicit intent

Step1:create xml file and java file.

Step2:Open activity\_main.xml and add a button for moving to second activity andaTextview for viewing some text.Also add IDs for each components.

Step3:Open MainActivity.java file and instantiate the button,textview created in the xml fileusing findViewByid.This

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 23

method binds the created object to the UI components with the assigned id.

Step4:To create explicit intent,first add the listener on button and using this button youwill move to other activity.Now create an intent and start the targeted activity.

Step5:Now we have to create a second activity as a destination activity.

Step6:open second xml file.Add button and textview to moving back to home activity andto write some text on activity.Assign id to button and textview.

Step7:open second activity java file.first add the listener on button and using this buttonmove to home activity.create an intent and start the targeted activity.

## MainActivity.java

package com.example.a6intents;

import androidx.appcompat.app.AppCompatActivity;import android.content.Intent; import android.net.Uri; import android.os.Bundle; import android.view.View; import android.widget.Button;

public class MainActivity extends AppCompatActivity {Button button; @Override

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

#### //button.setOnClickListener(this);

}

public void show(View view){

Intent intent = new Intent(Intent.*ACTION\_VIEW*); intent.setData(Uri.*parse*(["https://www.fisat.ac.in")](http://www.fisat.ac.in/)); startActivity(intent);

}

public void callSecondActivity(View view){

Intent i=new Intent(getApplicationContext(),MainActivity2.class);startActivity(i);

}

}

## Activity\_main.xml

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

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

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 24

xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) xmlns:app[="http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) 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:layout\_marginEnd="8dp" android:layout\_marginStart="8dp" android:layout\_marginTop="8dp" android:text="First Activity"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.454" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.06" />

<Button

android:id="@+id/button" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginEnd="8dp" android:layout\_marginStart="8dp" android:layout\_marginTop="392dp" android:onClick="callSecondActivity" android:text="Call second activity" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/button3" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:onClick="show" android:text="implicit intent"tools:layout\_editor\_absoluteX="135dp"tools:layout\_editor\_absoluteY="204dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity2.java**

package com.example.a6intents;

import androidx.appcompat.app.AppCompatActivity;import android.content.Intent; import android.os.Bundle; import android.view.View; import android.widget.Button;

public class MainActivity2 extends AppCompatActivity {Button button; @Override

protected void onCreate(Bundle savedInstanceState)

{ super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main2*);

Bundle

extras = getIntent().getExtras();button=findViewById(R.id.*button*);

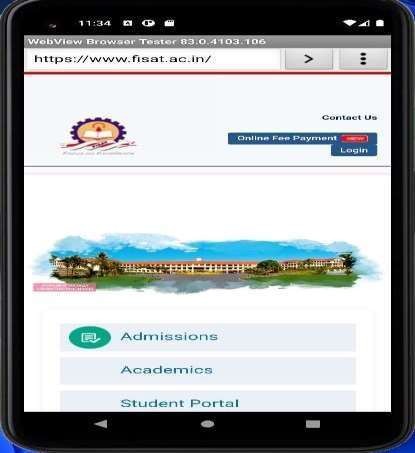
}

public void callFirstActivity(View view){

Intent i=new Intent(getApplicationContext(),MainActivity.class);startActivity(i);

}

}



## Activity\_main2.xml

package com.example.a6intents;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity2 extends AppCompatActivity {Button button; @Override

protected void onCreate(Bundle savedInstanceState)

{ super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main2*);

Bundle

extras = getIntent().getExtras();button=findViewById(R.id.*button*);

}

public void callFirstActivity(View view){

Intent i=new Intent(getApplicationContext(),MainActivity.class);startActivity(i);

}

}

## OUTPUT:



### PROGRAM 7:

Create an android application to demonstrate storing data intointernal phone memory.

## Procedures:

Step1:create Xml file and Java file.

Step2:Open activity\_main.xml file and add editText to input text and button to open webpage in a constraint layout.

Step3:Open MainActivity.java file and instantiate the button and edittext created in the xmlfile using findViewById() method.This metod binds the created object to the UI components with the help of assigned ID.

Step4:To display the information null file should be created using FILEOUTPUTSTREAM.

Step5:Create string type variable to store the value of EditText.Value is accepted and converted to string.

Step7:Create an intent object Mainactivity.java class to open the webpage.

Step8:The start activity() method starts to call a webpage for opening specified by intent.

## INTENT

Step1:create java file.

Step2:Open activity\_main.xml and by using findViewById get the values passed from the first MainActivity.java file.

Step3:To create intent,first add the listener on button and using this button you will move toother activity.Now create an intent and start the targeted activity.

Step4:Using fileInputStream the intented file will display the content passed by theMainActivity.java file.

## MainActivity.java

package com.example.a7storingdata;

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

import android.content.Context;import android.content.Intent; import android.view.View;import android.widget.EditText;import android.widget.Toast; import java.io.File;

import java.io.FileOutputStream;import java.io.IOException;

DEPARTMENT OF COMPUTER APPLICATIONS Page | 28

public class MainActivity extends AppCompatActivity {EditText editname,editpass; @Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main*); editname = (EditText) findViewById(R.id.*editName*);editpass= (EditText) findViewById(R.id.*editPass*);

}

public void save(View view) *// SAVE*

{

File file= null;

String name = editname.getText().toString(); String password =editpass.getText().toString();

FileOutputStream fileOutputStream = null;try { name = name + " "; file = getFilesDir(); fileOutputStream = openFileOutput("Code.txt",

Context.*MODE\_PRIVATE*); *//MODE PRIVATE*

fileOutputStream.write(name.getBytes()); fileOutputStream.write(password.getBytes()); Toast.*makeText*(this, "Saved

\n" + "Path --" + file +

"\tCode.txt", Toast.*LENGTH\_SHORT*).show();editname.setText(""); editpass.setText("");return;

} catch (Exception ex) { ex.printStackTrace();

} finally {

try { fileOutputStream.close();

} catch (IOException e) {e.printStackTrace();

}

}

}

public void next( View view) *//NEXT*

{

Toast.*makeText*(this,"NEXT", Toast.*LENGTH\_SHORT*).show();Intent intent= new Intent(this, MainActivity2.class); startActivity(intent);

}

}

## Activity\_main.xml

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

<RelativeLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:id="@+id/activity\_main" android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context="com.example.a7storingdata.MainActivity">

DEPARTMENT OF COMPUTER APPLICATIONS Page | 29

<TextView

android:text="@string/name" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_alignParentTop="true" android:layout\_alignParentLeft="true" android:layout\_alignParentStart="true" android:layout\_marginLeft="51dp" android:layout\_marginStart="51dp" android:layout\_marginTop="59dp" android:id="@+id/txtname" android:textStyle="bold|italic" android:textSize="18sp" />

<TextView

android:text="@string/password" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_below="@+id/txtname" android:layout\_alignLeft="@+id/txtname" android:layout\_alignStart="@+id/txtname" android:layout\_marginTop="56dp" android:id="@+id/txtpass" android:textStyle="bold|italic" android:textSize="18sp" />

<EditText

android:id="@+id/editName" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_alignParentTop="true" android:layout\_marginStart="21dp" android:layout\_marginLeft="21dp" android:layout\_marginTop="48dp" android:layout\_toEndOf="@+id/txtpass"

android:layout\_toRightOf="@+id/txtpass" android:ems="8" android:inputType="textPersonName" />

<EditText

android:id="@+id/editPass" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_below="@+id/editName" android:layout\_alignStart="@+id/editName" android:layout\_alignLeft="@+id/editName" android:layout\_marginTop="35dp" android:ems="10" android:inputType="textPassword" />

<Button

android:text="@string/save" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_below="@+id/editPass" android:layout\_alignLeft="@+id/txtpass" android:layout\_alignStart="@+id/txtpass" android:layout\_marginTop="86dp" android:id="@+id/button" android:onClick="save"/>

// OnClick "save"

DEPARTMENT OF COMPUTER APPLICATIONS Page | 30

<Button

android:text="@string/next" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_alignTop="@+id/button" android:layout\_alignRight="@+id/editName" android:layout\_alignEnd="@+id/editName" android:layout\_marginRight="25dp" android:layout\_marginEnd="25dp" android:id="@+id/button2" android:onClick="next"/> // OnClick "next"

</RelativeLayout>

## MainActivity2.java

package com.example.a7storingdata;

import androidx.appcompat.app.AppCompatActivity;import android.os.Bundle; import android.content.Intent;import android.util.Log; import android.view.View;import android.widget.TextView;import android.widget.Toast; import java.io.FileInputStream; public class MainActivity2 extends AppCompatActivity {TextView getname, getpass;

@Override

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

setContentView(R.layout.*activity\_main2*); getname = (TextView)findViewById(R.id.*getname*);getpass = (TextView)findViewById(R.id.*getpass*);

}

public void load(View view)

{

try {

FileInputStream fileInputStream = openFileInput("Code.txt");int read = -1; StringBuffer buffer = new StringBuffer(); while((read

=fileInputStream.read())!= -1){ buffer.append((char)read);

}

Log.*d*("Code", buffer.toString());

String name = buffer.substring(0,buffer.indexOf(" "));String pass = buffer.substring(buffer.indexOf(" ")+1);getname.setText(name); getpass.setText(pass);

} catch (Exception e) { e.printStackTrace();

}

Toast.*makeText*(this,"Loaded", Toast.*LENGTH\_SHORT*).show();

}

DEPARTMENT OF COMPUTER APPLICATIONS Page | 31

public void back( View view)

{

Toast.*makeText*(this,"Back", Toast.*LENGTH\_SHORT*).show();Intent intent= newIntent(this, MainActivity.class); startActivity(intent);

}

}

## Activity\_main2.xml

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

<RelativeLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:id="@+id/activity\_main2" android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context="com.example.a7storingdata.MainActivity2">

<TextView

android:text="@string/getname" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_alignParentTop="true" android:layout\_alignRight="@+id/button3" android:layout\_alignEnd="@+id/button3" android:layout\_marginRight="11dp"android:layout\_marginEnd="11dp" android:layout\_marginTop="76dp" android:id="@+id/textView3" android:textSize="18sp" android:textStyle="bold|italic" />

<TextView

android:text="@string/getpassword"

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_below="@+id/textView3" android:layout\_alignRight="@+id/textView3" android:layout\_alignEnd="@+id/textView3" android:layout\_marginTop="33dp" android:id="@+id/textView4" android:textStyle="bold|italic" android:textSize="18sp"

/>

<TextView

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_above="@+id/textView4" android:layout\_alignLeft="@+id/button4" android:layout\_alignStart="@+id/button4" android:id="@+id/getname" android:textStyle="bold|italic" android:textSize="18sp" />

DEPARTMENT OF COMPUTER APPLICATIONS Page | 32

<TextView

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_alignBottom="@+id/textView4" android:layout\_alignLeft="@+id/getname" android:layout\_alignStart="@+id/getname" android:id="@+id/getpass" android:textStyle="bold|italic" android:textSize="18sp" />

<Button

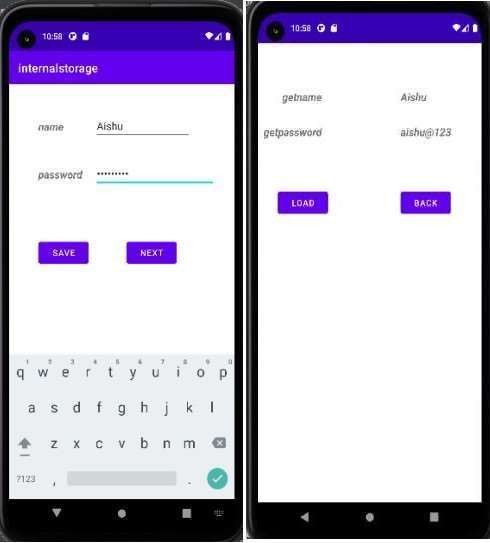
android:text="@string/load" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:id="@+id/button3" android:layout\_marginLeft="35dp" android:layout\_marginStart="35dp" android:onClick="load" android:layout\_below="@+id/textView4" android:layout\_alignParentLeft="true" android:layout\_alignParentStart="true" android:layout\_marginTop="80dp" />

<Button

android:text="@string/back" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginRight="54dp" android:layout\_marginEnd="54dp" android:id="@+id/button4" android:onClick="back" android:layout\_alignBaseline="@+id/button3" android:layout\_alignBottom="@+id/button3" android:layout\_alignParentRight="true" android:layout\_alignParentEnd="true" />

</RelativeLayout>

DEPARTMENT OF COMPUTER APPLICATIONS Page | 33



## OUTPUT:

FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 34

### PROGRAM 8:

Create an android application to demonstrate GridView Step1:create Xml file and Java file.

Step2:Open activity\_main.xml file and add GridView Layout.

Step3:Open MainActivity.java file and instantiate the gridview created in the xml file usingfindViewById() method. Then create setAdapter for the gridview.

IMAGEADAPTER

Step1:Create a new Imageadapter.java file. The class ImageAdapter will extend the BaseAdapter.

Step7:The BaseAdapter set Gridview for the images. Step8:Using R.drawable will assign the imageView.

## MainActivity.java

package com.example.prgm8;

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

import android.app.Activity; import android.view.Menu; import android.widget.GridView;

public class MainActivity extends Activity {@Override protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main*);

GridView gridview = (GridView) findViewById(R.id.*gridview*); gridview.setAdapter(new ImageAdapter(this));

}

}

## Activity\_main.xml

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

<GridView xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)android:id="@+id/gridview" android:layout\_width="fill\_parent" android:layout\_height="fill\_parent" android:columnWidth="120dp" android:numColumns="3"

android:verticalSpacing="10dp" android:horizontalSpacing="10dp" android:stretchMode="columnWidth" android:gravity="center"

/>

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 35

## ImageAdapter.java

package com.example.prgm8;

import android.content.Context;import android.view.View; import android.view.ViewGroup;

import android.widget.BaseAdapter;import android.widget.GridView; import android.widget.ImageView;

class ImageAdapter extends BaseAdapter {private Context mContext;public ImageAdapter(Context c) {mContext = c;

}

public int getCount() { return picIds.length;

}

public Object getItem(int position) {return null;

}

public long getItemId(int position) {return 0;

}

#### // create a new ImageView for each item referenced by the Adapter

public View getView(int position, View convertView, ViewGroup parent) {ImageView imageView;

if (convertView == null) {

imageView = new ImageView(mContext);imageView.setLayoutParams(new GridView.LayoutParams(85,85));

imageView.setScaleType(ImageView.ScaleType.*CENTER\_CROP*);

}

else

{

}

imageView.setPadding(8,8,8,8);

imageView = (ImageView) convertView;

imageView.setImageResource(picIds[position]); return imageView;

}

*// Keep all Images in array*public Integer[] picIds = {R.drawable.*sample2*, R.drawable.*sample3*, R.drawable.*sample4*, R.drawable.*sample5*, R.drawable.*sample6*, R.drawable.*sample7*, R.drawable.*sample0*, R.drawable.*sample1*, R.drawable.*sample2*, R.drawable.*sample3*, R.drawable.*sample4*, R.drawable.*sample5*, R.drawable.*sample6*, R.drawable.*sample7*, R.drawable.*sample0*, R.drawable.*sample1*, R.drawable.*sample2*, R.drawable.*sample3*, R.drawable.*sample4*, R.drawable.*sample5*

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 36



R.drawable.*sample7*,R.drawable.*sample0*,R.drawable.*sample1*

};

}

## OUTPUT :

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 37

### PROGRAM 9:

Demonstrate ImageView and GridView

**Procedure:**

GridView

Step 1: Creating a New Project

Step 2: Add google repository in the build.gradle file of the application project.Step 3: Modify the activity\_main.xml file

Step 4: Create an XML layout file for each item of GridViewStep 5: Create a Modal Class for storing Data

Step 6: Create an Adapter Class

Step 7: Modify the MainActivity.java file Image View

Step 1: Create a New Project

Step 2: Working with the activity\_main.xml fileStep 3: Working with the MainActivity file

## MainActivity.java

package com.example.prgm9;

import androidx.appcompat.app.AppCompatActivity;import android.app.Activity; import android.content.Intent;import android.os.Bundle; import android.view.View;import android.widget.AdapterView;import android.widget.GridView;

public class MainActivity extends Activity {@Override protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main*);

GridView gridview = (GridView) findViewById(R.id.*gridview*); gridview.setAdapter(new ImageAdapter(this));

id){

gridview.setOnItemClickListener(new AdapterView.OnItemClickListener() { public void onItemClick(AdapterView<?> parent, View v, intposition, long

#### // Send intent to SingleViewActivity

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

#### // Pass image index

i.putExtra("id", position);startActivity(i);

}

});

}

}

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 38

## Activity\_main.xml

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

<GridView xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)android:id="@+id/gridview" android:layout\_width="fill\_parent" android:layout\_height="fill\_parent" android:columnWidth="120dp" android:numColumns="3"

android:verticalSpacing="10dp" android:horizontalSpacing="10dp" android:stretchMode="columnWidth"

android:gravity="center"

/>

## ImageAdapter.java

package com.example.prgm9;

import android.content.Context;import android.view.View; import android.view.ViewGroup;

import android.widget.BaseAdapter;import android.widget.GridView; import android.widget.ImageView;

class ImageAdapter extends BaseAdapter {private Context mContext;

#### // Constructor

public ImageAdapter(Context c) {mContext = c;

}

public int getCount() { return picIds.length;

}

public Object getItem(int position) {return null;

}

public long getItemId(int position) {

return 0;

}

#### // create a new ImageView for each item referenced by the Adapter

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 39

public View getView(int position, View convertView, ViewGroup parent) {ImageView imageView;

if (convertView == null) {

imageView = new ImageView(mContext);imageView.setLayoutParams(new GridView.LayoutParams(85, 85));

imageView.setScaleType(ImageView.ScaleType.*CENTER\_CROP*); imageView.setPadding(8, 8, 8,

8);

} else {

imageView = (ImageView) convertView;

}

imageView.setImageResource(picIds[position]); return imageView;

}

*// Keep all Images in array*public Integer[] picIds = {R.drawable.*sample2*,

R.drawable.*sample3*, R.drawable.*sample4*, R.drawable.*sample5*, R.drawable.*sample6*, R.drawable.*sample7*, R.drawable.*sample0*, R.drawable.*sample1*, R.drawable.*sample2*, R.drawable.*sample3*, R.drawable.*sample4*, R.drawable.*sample5*, R.drawable.*sample6*, R.drawable.*sample7*, R.drawable.*sample0*, R.drawable.*sample1*, R.drawable.*sample2*, R.drawable.*sample3*, R.drawable.*sample4*, R.drawable.*sample5*, R.drawable.*sample6*, R.drawable.*sample7*, R.drawable.*sample0*, R.drawable.*sample1*

};

}

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 40

**SingleViewActivity.java**

package com.example.prgm9;

import androidx.appcompat.app.AppCompatActivity;import android.app.Activity;import android.content.Intent;import android.os.Bundle;

import android.widget.ImageView;

public class SingleViewActivity extends AppCompatActivity {@Override protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_single\_view*);

#### // Get intent data

Intent i = getIntent();

#### // Selected image id

int position = i.getExtras().getInt("id"); ImageAdapter imageAdapter = newImageAdapter(this); ImageView imageView = (ImageView) findViewById(R.id.*SingleView*);

imageView.setImageResource(imageAdapter.picIds[position]);

}

}

**Activity\_single\_view.xml**

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

<LinearLayout

xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:layout\_width="match\_parent" android:layout\_height="match\_parent" android:orientation="vertical" >

<ImageView android:id="@+id/SingleView" android:layout\_width="fill\_parent" android:layout\_height="fill\_parent"/>

</LinearLayout>



**OUTPUT:**



### PROGRAM 10:

Demonstration of Toggle Button

## Procedure:

Step 1: START

Step 2: Create Xml file and Java file.

Step 2: Open activity\_main.xml file and one Image View to display image andone button to change images in a frame layout.

Step 3: Download three images and name it piq1.jpg, buttonback.jpg, andpic2.jpg etc and paste it in /src/drawable/ folder.

Step 4: Open MainActivity.java file and import the libraries that are needed.

Step 5: Instantiate the button and Image View created in the xml file using findViewById() method. This method binds the created object to the UI components with the help of assigned ID.

Step 6: By clicking the button with buttonback.jpg, it changes the images between piq1.jpg and pic2.jpg.

Step 7: STOP

## MAINACTIVITY.JAVA

package com.example.togglebutton;

import android.app.Activity; import android.view.View; import android.widget.Button;import android.widget.ImageView; import android.os.Bundle;

public class MainActivity extends Activity { String s = "Next"; @Override

protected void onCreate(Bundle

savedInstanceState) {

**// *TODO Auto-generated method stub* super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main*); Button next= (Button)**

findViewById(R.id.*next*); next.setText(s); next.setOnClickListener(newView.OnClickListener() { @Override

public void onClick(View v) { if (s.equals("Next")) {

**// *TODO Auto-generated method stub***

ImageView img = (ImageView) findViewById(R.id.*imageview*); img.setImageResource(R.drawable.*pic1*); Button next= (Button)

findViewById(R.id.*next*); s = "Prev"; next.setText(s);

} else {

ImageView img = (ImageView) findViewById(R.id.*imageview*);

img.setImageResource(R.drawable.*pic2*); Button next= (Button) findViewById(R.id.*next*); s = "Next";

next.setText(s);

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 44

};

}

});

}

}

## ACTIVITY\_MAIN.XML

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

<FrameLayout xmlns:andro[id="http:](http://schemas.android.com/apk/res/android)//[schemas.android.com/apk/res/android](http://schemas.android.com/apk/res/android)" android:layout\_width="fill\_parent"

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

<ImageView android:id="@+id/imageview" android:layout\_width="fill\_parent" android:layout\_height="fill\_parent" android:scaleType="fitCenter" android:src="@drawable/pic1" />

<Button android:id="@+id/next" android:layout\_width="wrap\_content" android:layout\_height="30dp"

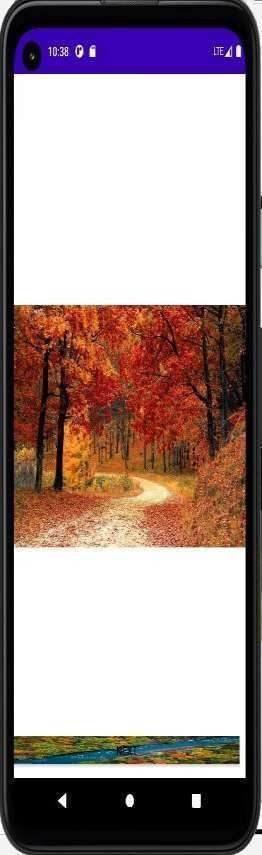
android:layout\_marginBottom="15dp" android:layout\_marginRight="10dp" android:layout\_gravity="bottom|right" android:paddingTop="2dp" android:paddingBottom="2dp" android:background="@drawable/buttonback"android:textColor="#000000" android:text="Next"

/>

</FrameLayout>

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 45



## OUTPUT

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 46

### PROGRAM 11:

Demonstration of options menu

## Procedure:

Step 1: Start

Step 2: Create xml and java file Step 3:

Create optionsmenu.xml file

Step 4: Open optionsmenu.xml file, and add one or more items to your optionsmenu depending on the needs.

Step 5: Open main\_activity.java file and import necessary libraries

Step 6: Inflate the menu resources using onCreateOptionsMenu() method.

Step 7: Detect user interaction by add the onOptionsItemSelected methodoutline after the onCreateOptionsMenu() method.

Step 8: Respond to Menu Item Selection by using switch statement to yourmethod. Step 9: Stop

## MAINACTIVITY.JAVA

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

import android.view.Menu; import android.view.MenuItem; import android.widget.TextView;import android.widget.Toast;

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

// TextView tvMsg; @Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

// tvMsg= (TextView) findViewById(R.id.textView);

}

// Overriding onCreateoptionMenu() to make Option menu @Override

public boolean onCreateOptionsMenu(Menu menu) {

//Inflating menu by overriding inflate() method of MenuInflater class.

//Inflating here means parsing layout XML to views. getMenuInflater().inflate(R.menu.menucontext, menu);return true;

}

//Overriding onOptionsItemSelected to perform event on menu

FEDERAL INSTITUTION OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF COMPUTER APPLICATIONS Page | 47

items @Override

public boolean onOptionsItemSelected(MenuItem menuItem) {

Toast.makeText(this, "The MENU ITEM Selected : " + menuItem.getTitle(), Toast.LENGTH\_LONG).show(); switch (menuItem.getItemId()) {

case R.id.search:

//Your code here return true;

case R.id.find:

//Your code here return true;

case R.id.edit:

//Your code here return true;

case R.id.relocate:

//Your code here return true;

case R.id.exit:

//Your code here return true; default:

return super.onOptionsItemSelected(menuItem);

}

}

}}

## ACTIVITY\_MAIN.XML

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android[="h](http://schemas.android.com/apk/res/android)tt[p://schemas.android.com/apk/res/android](http://schemas.android.com/apk/res/android)" xmlns:app[="h](http://schemas.android.com/apk/res-auto)tt[p://schemas.android.com/apk/res-auto](http://schemas.android.com/apk/res-auto)" xmlns:tools[="h](http://schemas.android.com/tools)tt[p://schemas.android.com/tools](http://schemas.android.com/tools)" android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">

</androidx.constraintlayout.widget.ConstraintLayout>

DEPARTMENT OF COMPUTER APPLICATIONS Page | 48

## MENUCONTEXT.XML

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

<menu xmlns:android[="h](http://schemas.android.com/apk/res/android)tt[p://schemas.android.com/apk/res/android](http://schemas.android.com/apk/res/android)">

<item android:id="@+id/search" android:title="Search" />

<item android:id="@+id/find" android:title="Find" />

<item android:id="@+id/edit" android:title="Edit" />

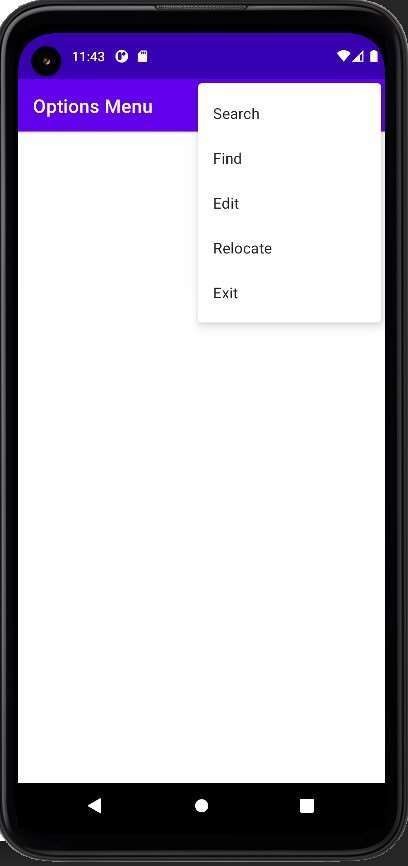
<item android:id="@+id/relocate" android:title="Relocate" />

<item android:id="@+id/exit"

android:title="Exit" /> </menu>

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 49



## OUTPUT:

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 50

### PROGRAM 12:

Use of Spinner widget in android application demonstration.

## Procedure:

Step 1 : Start

Step 2 : Create xml and java file

Step 3 : Open activity\_main.xml file and add a spinner object inside relativelayout and one textview

Step 4 : Create strings.xml file

Step 5 : Open strings.xml file and add string under resource element with fewitems using string-array

Step 6 : Open main\_activity.java file and import necessary libraries

Step 7 : Getting the instance of spinner using findViewById() and applyingOnItemSelectedListener on it Step 8 : We use array adapter to fill the data in spinner, also we use toast todisplay

when the item in spinner is selected.

Step 9 : Performing action OnItemSelected and OnNothingSelectedStep10 : Stop

## MainActivity.java

package com.example.a12spinnerwidget;import android.os.Bundle;import android.view.View;

import android.widget.AdapterView;import android.widget.Spinner; importandroid.widget.Toast;

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

#### // these are the global variables

Spinner classSpinner, divSpinner;

#### // string variable to store selected values

String selectedClass, selectedDiv;

@Override

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

classSpinner = (Spinner) findViewById(R.id.*classSpinner*);divSpinner = (Spinner) findViewById(R.id.*divSpinner*);

#### // Class Spinner implementing onItemSelectedListener

classSpinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener()

{

@Override

public void onItemSelected(AdapterView<?> parent, View view,int position,

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 51

long id) {

String selectedClass = parent.getItemAtPosition(position).toString();switch (selectedClass) {case "Class 1":

#### // assigning div item list defined in XMLto the div

*Spinner*

divSpinner.setAdapter(new

ArrayAdapter<String>(MainActivity.this, android.R.layout.*simple\_spinner\_dropdown\_item*,

getResources().getStringArray(R.array.*items\_div\_class\_1*)));

break;

case "Class 2": divSpinner.setAdapter(new

ArrayAdapter<String>(MainActivity.this, android.R.layout.*simple\_spinner\_dropdown\_item*,

getResources().getStringArray(R.array.*items\_div\_class\_2*)));

break;

case "Class 3": divSpinner.setAdapter(new

ArrayAdapter<String>(MainActivity.this, android.R.layout.*simple\_spinner\_dropdown\_item*, getResources().getStringArray(R.array.*items\_div\_class\_3*)));

Toast.*makeText*(MainActivity.this, "\n Class: \t " +selectedClass, Toast.*LENGTH\_LONG*).show();

break;

case "Class 4": divSpinner.setAdapter(new

ArrayAdapter<String>(MainActivity.this, android.R.layout.*simple\_spinner\_dropdown\_item*, getResources().getStringArray(R.array.*items\_div\_class\_4*)));

Toast.*makeText*(MainActivity.this, "\n Class: \t " +selectedClass, Toast.*LENGTH\_LONG*).show();

break;

}

#### //set divSpinner Visibility to Visible

divSpinner.setVisibility(View.*VISIBLE*);

}

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 52

@Override

public void onNothingSelected(AdapterView<?> parent) {

#### // can leave this empty

}

});

#### // Div Spinner implementing onItemSelectedListener

divSpinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() { @Override public void onItemSelected(AdapterView<?> parent, Viewview, int position,long

id) { selectedDiv =

parent.getItemAtPosition(position).toString();

#### // create a Toast to show the values on screen

Toast.*makeText*(MainActivity.this,

"\n Div: \t" + selectedDiv,Toast.*LENGTH\_LONG*).show();

}

@Override

public void onNothingSelected(AdapterView<?> parent) {

#### // can leave this empty

}

});

}

}

## activity\_main.xml

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

<RelativeLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context="com.example.a12spinnerwidget.MainActivity">

<TextView

android:id="@+id/tvDemo" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_alignParentStart="true" android:layout\_alignParentTop="true" android:gravity="center" android:text="SPINNER DEMO" android:layout\_alignParentLeft="true" />

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 53

<Spinner

android:id="@+id/classSpinner" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_below="@+id/tvDemo" android:layout\_marginTop="25dp" android:entries="@array/items\_class"/>

<Spinner

android:id="@+id/divSpinner" android:visibility="gone"

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_below="@id/classSpinner" android:layout\_toLeftOf="@id/classSpinner" android:layout\_marginTop="10dp"

/>

</RelativeLayout>

## strings.xml

<resources>

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

<string-array name="items\_class">

<item>Class 1</item>

<item>Class 2</item>

<item>Class 3</item>

<item>Class 4</item>

</string-array>

<string-array name="items\_div\_class\_1">

<item>Div 1-A</item>

<item>Div 1-B</item>

<item>Div 1-C</item>

<item>Div 1-D</item>

</string-array>

<string-array name="items\_div\_class\_2">

<item>Div 2-A</item>

<item>Div 2-B</item>

<item>Div 2-C</item>

<item>Div 2-D</item>

</string-array>

<string-array name="items\_div\_class\_3">

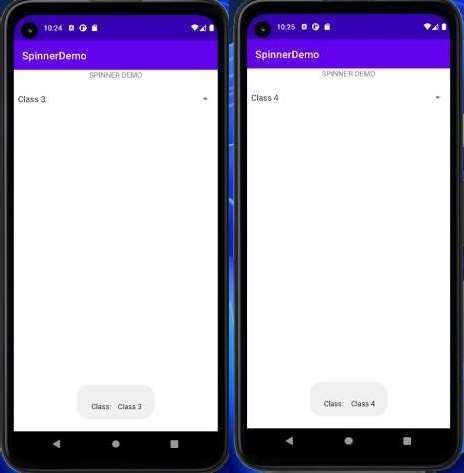
<item>Div 3-A</item>

<item>Div 3-B</item>

<item>Div 3-C</item>

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 54



<item>Div 3-D</item>

</string-array>

<string-array name="items\_div\_class\_4">

<item>Div 4-A</item>

<item>Div 4-B</item>

<item>Div 4-C</item>

<item>Div 4-D</item>

</string-array>

</resources>

## OUTPUT:

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 55

### PROGRAM 13:

Database application using SQLite.

## Procedure:

### Step 1: Start

Step 2: Create xml and java files

Step 3: Open activity\_main.xml file and add four textview, edittext and addfour buttons to perform add, view, delete and update

Step 4: Open main\_activity.java file and import the libraries that are neededStep 5: Create mydb object for the databasehelper class

Step 6: Instantiate the buttons and edittext created in the xml file using findViewById() method. This method binds the created object to the UIcomponents with the help of assigned ID.

Step 7: Define methods deletedata(), adddata(), updatedata() ,viewall(), which returns delete particular data, insert data, update data, and view all dataoperations respectively

Step 8: OnCreateOptionsMenu() method specify the options menu for the activity. It inflates the menu resource defined in xml into menu provided.

Step 9: By using OnOptionsItemSelected() method we can handle action baritems that clicks.

Step 10: Create databasehelper.java file to handle database operations thatare defined using sqliteopenhelper

Step 11: Mention all database informations such as database, table, columns etc.

Step 12: Call methods inorder to handle the database opertions such as creation, upgrading, reading, writing, deleting

Step 13: Stop

## ACTIVITY\_MAIN.XML

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

<RelativeLayout xmlns:android[="h](http://schemas.android.com/apk/res/)tt[p://schemas.android.com/apk/res/](http://schemas.android.com/apk/res/)android" xmlns:tools[="h](http://schemas.android.com/tools)tt[p://schemas.android.com/tools](http://schemas.android.com/tools)" android:layout\_width="match\_parent"

android:layout\_height="match\_parent" tools:context=".MainActivity">

<TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 56

android:textAppearance="?android:attr/textAppearanceLarge" android:text="Name" android:id="@+id/textView"

android:layout\_alignParentTop="true" android:layout\_alignParentLeft="true" android:layout\_alignParentStart="true" />

<TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:textAppearance="?android:attr/textAppearanceLarge" android:text="Surname"

android:id="@+id/textView2" android:layout\_below="@+id/editText\_name" android:layout\_alignParentLeft="true" android:layout\_alignParentStart="true" />

<TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:textAppearance="?android:attr/textAppearanceLarge"

android:text="Marks" android:id="@+id/textView3" android:layout\_below="@+id/editText\_surname" android:layout\_alignParentLeft="true" android:layout\_alignParentStart="true" />

<EditText android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/editText\_name" android:layout\_alignTop="@+id/textView"

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 57

android:layout\_toRightOf="@+id/textView" android:layout\_toEndOf="@+id/textView"

/>

<EditText android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/editText\_surname" android:layout\_alignTop="@+id/textView2" android:layout\_toRightOf="@+id/textView2" android:layout\_toEndOf="@+id/textView2" />

<EditText android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/editText\_Marks" android:layout\_below="@+id/editText\_surname" android:layout\_toRightOf="@+id/textView3" android:layout\_toEndOf="@+id/textView3" />

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

android:text="Add Data" android:id="@+id/button\_add" android:layout\_below="@+id/editText\_Marks" android:layout\_alignParentLeft="true" android:layout\_alignParentStart="true" android:layout\_marginTop="76dp" />

<Button android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="View All"

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 58

android:id="@+id/button\_viewAll" android:layout\_above="@+id/button\_update" android:layout\_centerHorizontal="true" />

<Button android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Update" android:id="@+id/button\_update" android:layout\_below="@+id/button\_add" android:layout\_alignParentLeft="true" android:layout\_alignParentStart="true" />

<Button android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Delete" android:id="@+id/button\_delete" android:layout\_centerVertical="true" android:layout\_below="@+id/button\_viewAll" android:layout\_alignLeft="@+id/button\_viewAll"

android:layout\_alignStart="@+id/button\_viewAll" />

<TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:textAppearance="?android:attr/textAppearanceLarge" android:text="id"

android:id="@+id/textView\_id" android:layout\_below="@+id/editText\_Marks" android:layout\_alignParentLeft="true" android:layout\_alignParentStart="true" />

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 59

<EditText android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:id="@+id/editText\_id" android:layout\_alignTop="@+id/textView\_id" android:layout\_toRightOf="@+id/textView3" android:layout\_toEndOf="@+id/textView3" />

</RelativeLayout>

## MAINACTIVITY.JAVA

package com.example.dbtest;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity; import android.database.Cursor;

import android.os.Bundle; import android.view.Menu; import android.view.MenuItem;import android.view.View; import android.widget.Button; import android.widget.EditText;import android.widget.Toast;

public class MainActivity extends AppCompatActivity { DatabaseHelper myDb;

EditText editName,editSurname,editMarks ,editTextId; Button btnAddData;

Button btnviewAll; Button btnDelete; Button btnviewUpdate;

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 60

@Override

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

myDb = new DatabaseHelper(this);

editName = (EditText)findViewById(R.id.editText\_name); editSurname = (EditText)findViewById(R.id.editText\_surname);

editMarks = (EditText)findViewById(R.id.editText\_Marks); editTextId = (EditText)findViewById(R.id.editText\_id); btnAddData

= (Button)findViewById(R.id.button\_add); btnviewAll = (Button)findViewById(R.id.button\_viewAll); btnviewUpdate= (Button)findViewById(R.id.button\_update);btnDelete= (Button)findViewById(R.id.button\_delete); AddData(); viewAll();

UpdateData(); DeleteData();

}

public void DeleteData() { btnDelete.setOnClickListener(new View.OnClickListener() { @Override public void onClick(View v) { Integer deletedRows =

myDb.deleteData(editTextId.getText().toString()); if(deletedRows > 0) Toast.makeText(MainActivity.this,"Data Deleted",Toast.LENGTH\_LONG).show();

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 61

else Toast.makeText(MainActivity.this,"Data not Deleted",Toast.LENGTH\_LONG).show();

}

}

);

}

public void UpdateData() { btnviewUpdate.setOnClickListener(

new View.OnClickListener() { @Override

public void onClick(View v) { boolean isUpdate =

myDb.updateData(editTextId.getText().toString(), editName.getText().toString(),

editSurname.getText().toString(),editMarks.getText().toString()); if(isUpdate == true)

Toast.makeText(MainActivity.this,"Data Update",Toast.LENGTH\_LONG).show(); else Toast.makeText(MainActivity.this,"Data

not Updated",Toast.LENGTH\_LONG).show();

}

}

);

}

public void AddData() { btnAddData.setOnClickListener(

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 62

new View.OnClickListener() { @Override

public void onClick(View v) { boolean isInserted =

myDb.insertData(editName.getText().toString(), editSurname.getText().toString(), editMarks.getText().toString() );

if(isInserted == true) Toast.makeText(MainActivity.this,"Data Inserted",Toast.LENGTH\_LONG).show();else

Toast.makeText(MainActivity.this,"Data

not Inserted",Toast.LENGTH\_LONG).show();

}

}

);

}

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

Cursor res = myDb.getAllData(); if(res.getCount() == 0) {

// show message showMessage("Error","Nothing found");

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 63

return;

}

StringBuffer buffer = new StringBuffer();while (res.moveToNext()) { buffer.append("Id :"+ res.getString(0)+"\n"); buffer.append("Name

:"+ res.getString(1)+"\n"); buffer.append("Surname :"+ res.getString(2)+"\n"); buffer.append("Marks

:"+ res.getString(3)+"\n\n");

}

// Show all data showMessage("Data",buffer.toString());

}

}

);

}

public void showMessage(String title,String Message){ AlertDialog.Builder builder = new AlertDialog.Builder(this); builder.setCancelable(true);

builder.setTitle(title); builder.setMessage(Message); builder.show();

}

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 64

@Override

public boolean onCreateOptionsMenu(Menu menu) {

// Inflate the menu; this adds items to the action bar ifit is present.

//getMenuInflater().inflate(R.menu.menu\_main, menu);return true;

}

@Override

public boolean onOptionsItemSelected(MenuItem item) {

// Handle action bar item clicks here. The action bar will

// automatically handle clicks on the Home/Up button, solong

// as you specify a parent activity in AndroidManifest.xml.

int id = item.getItemId();

//noinspection SimplifiableIfStatement

/\* if (id == R.id.action\_settings) { return true;

}\*/

return super.onOptionsItemSelected(item);

}

}

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 65

## DATABASEHELPER.JAVA

package com.example.dbtest;

import android.content.ContentValues; import android.content.Context; import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase; import android.database.sqlite.SQLiteOpenHelper;

public class DatabaseHelper extends SQLiteOpenHelper { public static final String DATABASE\_NAME = "Student.db";public static final String TABLE\_NAME = "student\_table"; public static final String COL\_1 = "ID";

public static final String COL\_2 = "NAME"; public static final String COL\_3 = "SURNAME";public static final String COL\_4 = "MARKS";

public DatabaseHelper(Context context) { super(context, DATABASE\_NAME, null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) {

db.execSQL("create table " + TABLE\_NAME +" (ID INTEGER PRIMARY KEY AUTOINCREMENT,NAME TEXT,SURNAME TEXT,MARKS INTEGER)");

}

@Override

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

FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 66

db.execSQL("DROP TABLE IF EXISTS "+TABLE\_NAME);

onCreate(db);

}

public boolean insertData(String name,String surname,String marks) {SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues(); contentValues.put(COL\_2,name); contentValues.put(COL\_3,surname); contentValues.put(COL\_4,marks);

long result = db.insert(TABLE\_NAME,null ,contentValues); if(result == -1)

return false; else

return true;

}

public Cursor getAllData() {

SQLiteDatabase db = this.getWritableDatabase();

Cursor res = db.rawQuery("select \* from "+TABLE\_NAME,null); return res;

}

public boolean updateData(String id,String name,String surname,Stringmarks) { SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues(); contentValues.put(COL\_1,id); contentValues.put(COL\_2,name);

DEPARTMENT OF COMPUTER APPLICATIONS

Page | 67

contentValues.put(COL\_3,surname); contentValues.put(COL\_4,marks);

db.update(TABLE\_NAME, contentValues, "ID = ?",new String[]

{ id });

return true;

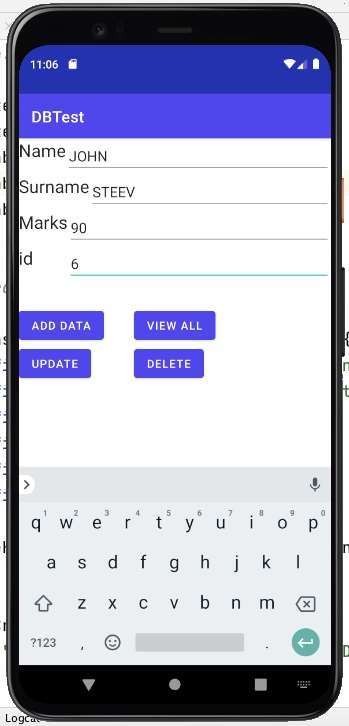
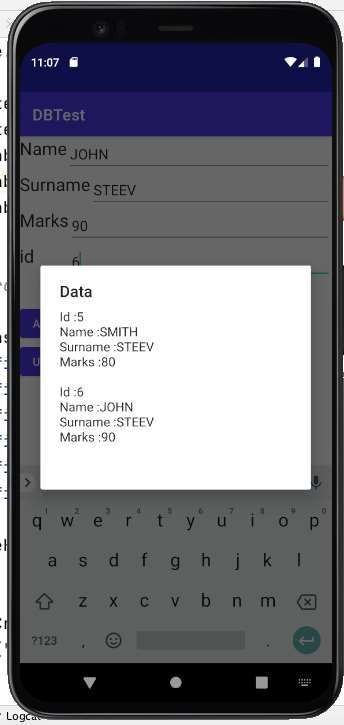
}

public Integer deleteData (String id) { SQLiteDatabase db = this.getWritableDatabase();

return db.delete(TABLE\_NAME, "ID = ?",new String[] {id});

}

}



## OUTPUT:

FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY