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**Coimbatore – 641014**



**Department of Computing**

**19MAM66 – Mobile Application Development Lab**

**Record Work**

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**Ex.no:01**

**STUDY OF ANDROID STUDIO**

**INTRODUCTION**

Android Studio is an Integrated Development Environment (IDE) that is used to develop applications for the Android operating system. It was developed by Google and is the official IDE for Android app development.

**Some key features and concepts to study in Android Studio:**

1. Project Structure: Understanding the structure of an Android Studio project is important. Each project contains a manifest file, resources, assets, and Java code. The manifest file describes the application's components and their requirements.
2. User Interface Design: Android Studio provides a drag-and-drop interface builder to design the user interface of an app. You can use XML layout files to define the layout and components of an activity.
3. Activity Lifecycle: Android apps are composed of activities that have a lifecycle. Understanding the lifecycle is important for managing the state of an app and ensuring it behaves correctly.
4. Intents: Intents are messages that are used to communicate between different components of an app or between different apps. Understanding how to use intents is important for creating apps that can interact with other apps on a device.
5. Debugging and Testing: Android Studio provides tools for debugging and testing an app. You can use the Android Emulator to simulate different devices and test your app on different versions of Android.
6. Gradle Build System: The Gradle build system is used to build, test, and package Android apps. Understanding how to use Gradle is important for managing dependencies and building your app for different platforms.
7. Android SDK: The Android SDK is a set of tools and libraries that developers use to create Android apps. Understanding the SDK is important for using the latest Android features and ensuring compatibility with different devices.

**Ex.no:02**

**HELLO WORLD IN ANDROID STUDIO**

**Aim**

To create hello world application using Android Studio

**CODE**

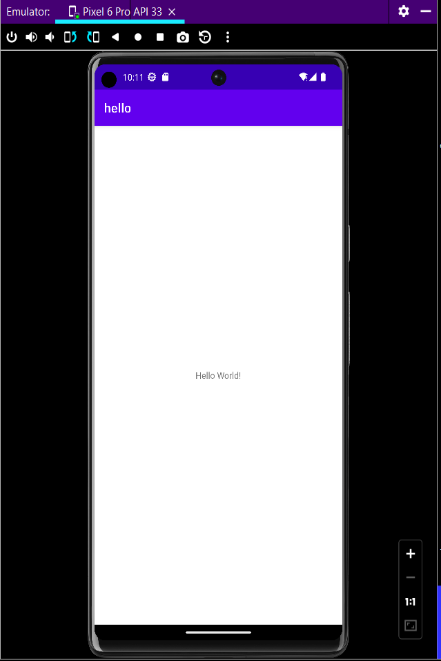
**XML**

<?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: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**

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

**OUTPUT**



**Ex.no:03**

**GUI FOR PROFILE**

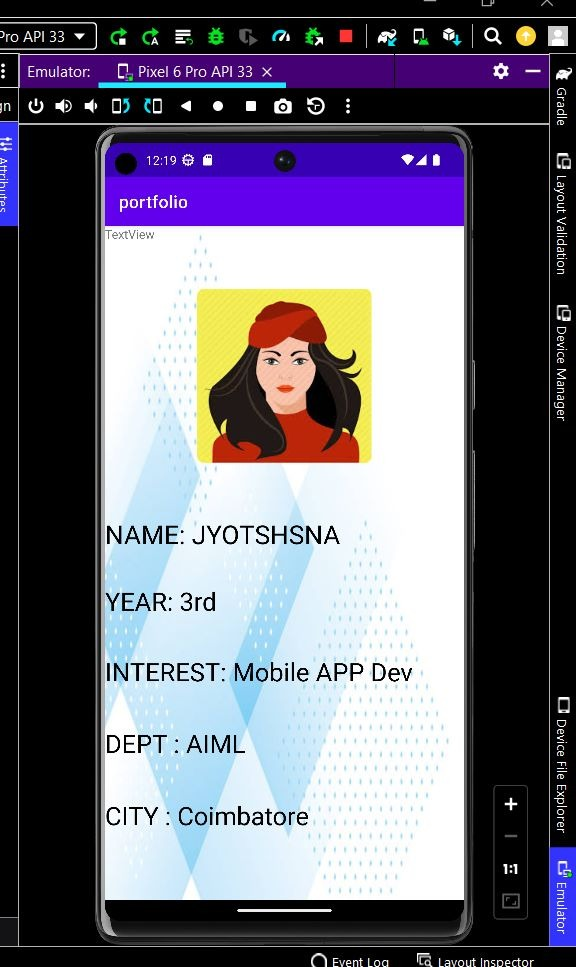
**Aim**

To create GUI for profile application using Android Studio

**CODE**

**XML**  
<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="#E14646"  
 tools:context=".MainActivity"  
 tools:ignore="ExtraText">  
 <ImageView  
 android:layout\_width="250dp"  
 android:layout\_height="200dp"  
 android:src="@drawable/ic\_baseline\_person\_24"  
 android:maxHeight="60dp"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginStart="15dp"  
 android:layout\_marginTop="72dp"  
 android:layout\_marginEnd="15dp"  
 android:layout\_marginBottom="15dp"  
 android:id="@+id/image"  
 tools:ignore="ContentDescription"   
 <TextView  
 android:id="@+id/name"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/image"  
 android:layout\_marginTop="46dp"  
 android:text="NAME: KIRUTHIKA"  
 android:textColor="#f9f5f7"  
 android:textSize="24sp" />  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/year"  
 android:text="YEAR: 3rd"  
 android:textColor="#f9f5f7"  
 android:layout\_below="@id/name"  
 android:textSize="29sp" />  
 <TextView  
 android:id="@+id/intrest"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/year"  
 android:layout\_marginTop="-7dp"  
 android:text="INTREST: Mobile APP Development"  
 android:textColor="#f9f5f7"  
 android:textSize="29sp" />  
 <TextView  
 android:id="@+id/dept"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/intrest"  
 android:layout\_marginTop="-7dp"  
 android:text="@string/dept"  
 android:textColor="#f9f5f7"  
 android:textSize="29sp" />  
 <TextView  
 android:id="@+id/addr"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/dept"  
 android:layout\_marginTop="10dp"  
 android:text="ADDRESS: coimbatore institute of technology"  
 android:textColor="#f9f5f7"  
 android:textSize="29sp" />  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="TextView" />  
</RelativeLayout>

**OUTPUT**



**Ex.no:04**

**READ DETAILS FROM TEXT BOX**

**AIM**To read details from the text box using android studio

**CODE**

**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:backgroundTint="#80D8FF"

android:orientation="vertical"

tools:context=".create\_pg">

<ImageView

android:id="@+id/imager"

android:layout\_width="0dp"

android:layout\_height="0dp"

android:layout\_alignParentStart="true"

android:layout\_alignParentBottom="true"

android:background="@drawable/bg"

android:contentDescription="TODO"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="1.0"

tools:ignore="ContentDescription,MissingConstraints" />

<EditText

android:id="@+id/name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:fontFamily="serif"

android:hint="Your Good Name"

android:inputType="textPersonName"

android:textColor="#000000"

android:textColorHint="#454343"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.313"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.199"

tools:ignore="MissingConstraints" />

<EditText

android:id="@+id/age"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:fontFamily="serif"

android:hint="Years of your journey"

android:inputType="number"

android:textColor="#000000"

android:textColorHint="#454343"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.313"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.293"

tools:ignore="MissingConstraints" />

<EditText

android:id="@+id/dob"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:fontFamily="serif"

android:hint="Date of Birth"

android:inputType="date"

android:textColor="#000000"

android:textColorHint="#454343"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.313"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.387"

tools:ignore="MissingConstraints" />

<EditText

android:id="@+id/goal"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:hint="Want te be..?"

android:inputType="textPersonName"

android:textColor="#000000"

android:textColorHint="#454343"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.313"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.479"

tools:ignore="MissingConstraints" />

<Button

android:id="@+id/submit"

android:layout\_width="107dp"

android:layout\_height="45dp"

android:backgroundTint="#543FB324"

android:fontFamily="serif"

android:text="Done"

android:textAppearance="@style/TextAppearance.AppCompat.Body1"

android:textColor="#000000"

android:textSize="17sp"

android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.407"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.577"

tools:ignore="MissingConstraints" />

<Button

android:id="@+id/agenda"

android:layout\_width="139dp"

android:layout\_height="39dp"

android:backgroundTint="#543FB324"

android:text="Agenda"

android:textColorHint="#454343"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.43"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.848"

tools:ignore="MissingConstraints" />

<TextView

android:id="@+id/names"

android:layout\_width="260dp"

android:layout\_height="28dp"

android:text="XXX"

android:textColor="#000000"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.357"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.657" />

<TextView

android:id="@+id/goalto"

android:layout\_width="264dp"

android:layout\_height="65dp"

android:text="YYY"

android:textColor="#000000"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.367"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.758" />

</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA**

package com.example.madlab;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class create\_pg extends AppCompatActivity {

Button button,agenda,calc;

EditText l\_name,goal;

TextView nms,goal\_to;

String hold,g,n,hold2;

int a;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_create\_pg);

button = findViewById(R.id.submit);

agenda = findViewById(R.id.agenda);

nms = findViewById(R.id.names);

goal\_to = findViewById(R.id.goalto);

l\_name = findViewById(R.id.name);

goal = findViewById(R.id.goal);

button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showtext();

. agenda.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

open\_page();

public void open\_page(){

Intent it = new Intent(this,agenda.class);

startActivity(it);

public void showtext() {

n = l\_name.getText().toString().trim();

g = goal.getText().toString().trim();

hold = "Hello "+ n;

hold2 = "All the best for your goal as "+ g;

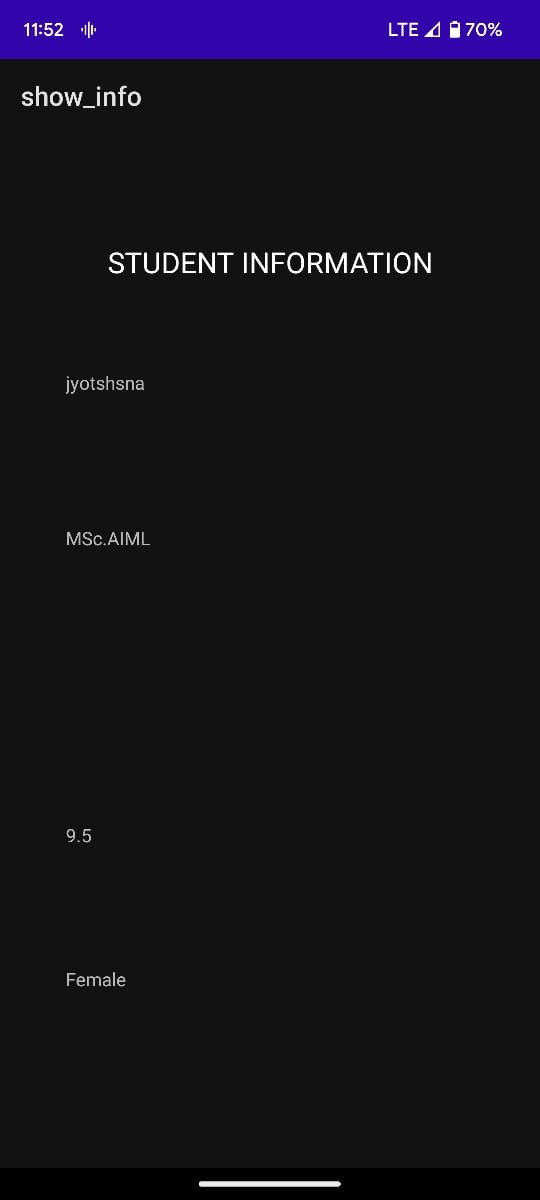
nms.setText(hold);

goal\_to.setText(hold2);

}

**}**

**OUTPUT**



**Ex.no:05**

**LOGIN FOR SOCIAL NETWORKING SITE**

**Aim**

To create a login page for a social networking site using android studio.

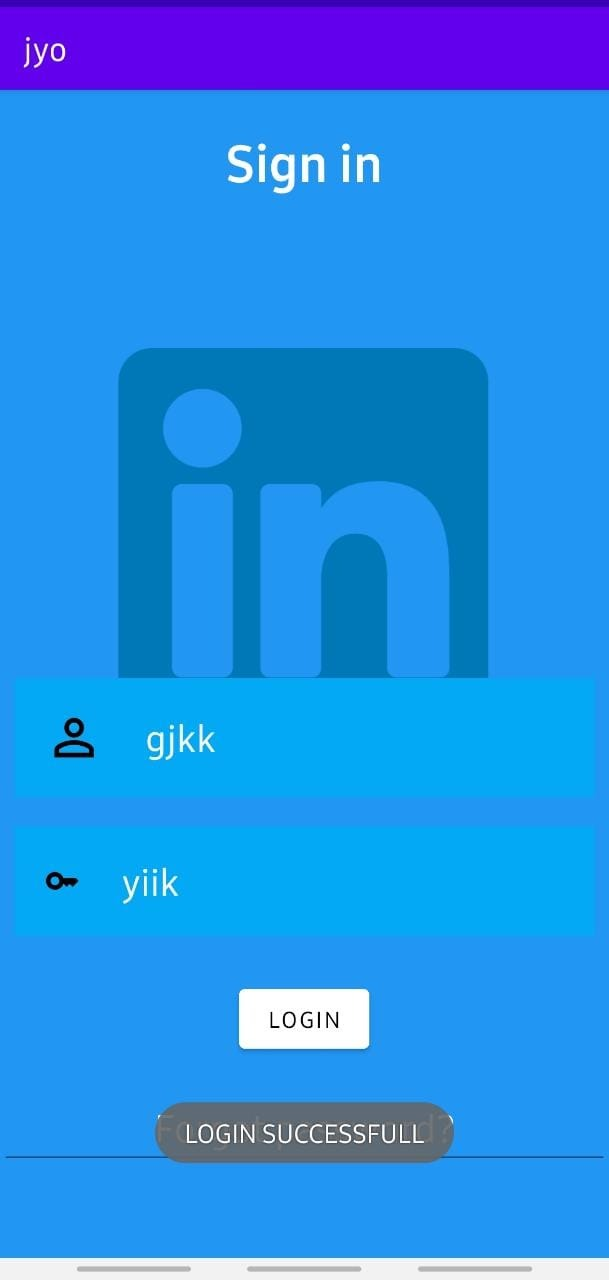
**CODE**

**XML**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@color/white"  
 tools:context=".MainActivity"  
 tools:ignore="ExtraText">  
 <TextView  
 android:id="@+id/signin"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="25dp"  
 android:layout\_marginTop="25dp"  
 android:layout\_marginEnd="25dp"  
 android:layout\_marginBottom="25dp"  
 android:gravity="center"  
 android:text="@string/twitter"  
 android:textColor="#2371d8"  
 android:textSize="35sp"  
 android:textStyle="bold" />  
 <ImageView  
 android:id="@+id/fblogo"  
 android:layout\_width="190dp"  
 android:layout\_height="190dp"  
 android:layout\_below="@id/signin"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginStart="15dp"  
 android:layout\_marginTop="43dp"  
 android:layout\_marginEnd="15dp"  
 android:layout\_marginBottom="15dp"  
 android:contentDescription="@string/todo"  
 android:gravity="center"  
 android:src="@drawable/img\_5"  
 tools:ignore="ContentDescription" />  
 <EditText  
 android:id="@+id/username"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/fblogo"  
 android:layout\_marginTop="25dp"  
 android:layout\_marginBottom="10dp"  
 android:autofillHints=""  
 android:background="#6CABDD"  
 android:drawableStart="@drawable/ic\_baseline\_person\_24"  
 android:drawablePadding="28dp"  
 android:hint="@string/name"  
 android:inputType="text"  
 android:padding="20dp"  
 android:textColor="@color/white"  
 android:textColorHint="@color/white"  
 android:textSize="25sp" />  
 <EditText  
 android:id="@+id/password"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/username"  
 android:layout\_alignParentStart="true"  
 android:autofillHints=""  
 android:background="#6CABDD"  
 android:drawableStart="@drawable/ic\_baseline\_vpn\_key\_24"  
 android:drawablePadding="20dp"  
 android:hint="@string/pass"  
 android:inputType="textPassword"  
 android:padding="20dp"  
 android:textColor="@color/white"  
 android:textColorHint="@color/white"  
 android:textSize="25sp" />  
 <com.google.android.material.button.MaterialButton  
 android:id="@+id/loginbtn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/password"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="20dp"  
 android:backgroundTint="@color/white"  
 android:padding="10dp"  
 android:text="@string/log"  
 android:textColor="@color/black" />  
 <TextView  
 android:id="@+id/forgotpassword"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/loginbtn"  
 android:layout\_marginTop="22dp"  
 android:layout\_marginBottom="20dp"  
 android:text="@string/forgot\_password"  
 android:layout\_centerHorizontal="true"  
 android:textColor="@color/black"  
 android:textSize="20sp" />

**JAVA**package com.example.login\_app**;**import android.os.Bundle**;**import android.view.View**;**import android.widget.TextView**;**import android.widget.Toast**;**import androidx.appcompat.app.AppCompatActivity**;**import com.google.android.material.button.MaterialButton**;**public class MainActivity extends AppCompatActivity {  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState)**;** setContentView(R.layout.*activity\_main*)**;** TextView username = findViewById(R.id.*username*)**;** TextView password = findViewById(R.id.*password*)**;** MaterialButton loginbtn = findViewById(R.id.*loginbtn*)**;** loginbtn.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 if (username.getText().toString().equals("admin") && password.getText().toString().equals("admin")) {  
 Toast.*makeText*(MainActivity.this**,** "LOGIN FAILED"**,** Toast.*LENGTH\_SHORT*).show()**;** } else  
 Toast.*makeText*(MainActivity.this**,** "LOGIN SUCCESSFULL"**,** Toast.*LENGTH\_SHORT*).show()**;**

**OUTPUT**



**Ex.no:06**

**DISPLAYING SHAPES**

**AIM**To display shapes according to the selection using android studio

**CODE**

**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=".learn\_pg">

<ImageView

android:id="@+id/imager"

android:layout\_width="0dp"

android:layout\_height="0dp"

android:layout\_alignParentStart="true"

android:layout\_alignParentBottom="true"

android:background="@drawable/bg"

android:contentDescription="TODO"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.0"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="1.0"

tools:ignore="ContentDescription,MissingConstraints" />

<Button

android:id="@+id/rectangle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:backgroundTint="#543FB324"

android:text="rectangle"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.747"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.411" />

<Button

android:id="@+id/triangle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:backgroundTint="#543FB324"

android:text="Triangle"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.214"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.411" />

<Button

android:id="@+id/square"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:backgroundTint="#543FB324"

android:text="Square"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.71"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.55" />

<Button

android:id="@+id/circle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:backgroundTint="#543FB324"

android:text="Circle"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.201"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.551" />

<TextView

android:id="@+id/textView3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Learn Shapes"

android:textColor="#000000"

android:textSize="24sp"

android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.268" />

<ImageView

android:id="@+id/shape"

android:layout\_width="151dp"

android:layout\_height="140dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.807"

app:srcCompat="@drawable/ic\_launcher\_foreground" />

</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA**

package com.example.madlab;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.ImageView;

public class learn\_pg extends AppCompatActivity {

Button c,r,t,s;

ImageView ci,ri,trii,sqi;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_learn\_pg);

c = findViewById(R.id.circle);

r = findViewById(R.id.rectangle);

s = findViewById(R.id.square);

ci = findViewById(R.id.shape);

ri = findViewById(R.id.shape);

trii = findViewById(R.id.shape);

sqi = findViewById(R.id.shape);

c.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

ci.setImageResource(R.drawable.circle);

}

});

r.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

ci.setImageResource(R.drawable.rect);

t.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

trii.setImageResource(R.drawable.triangle);

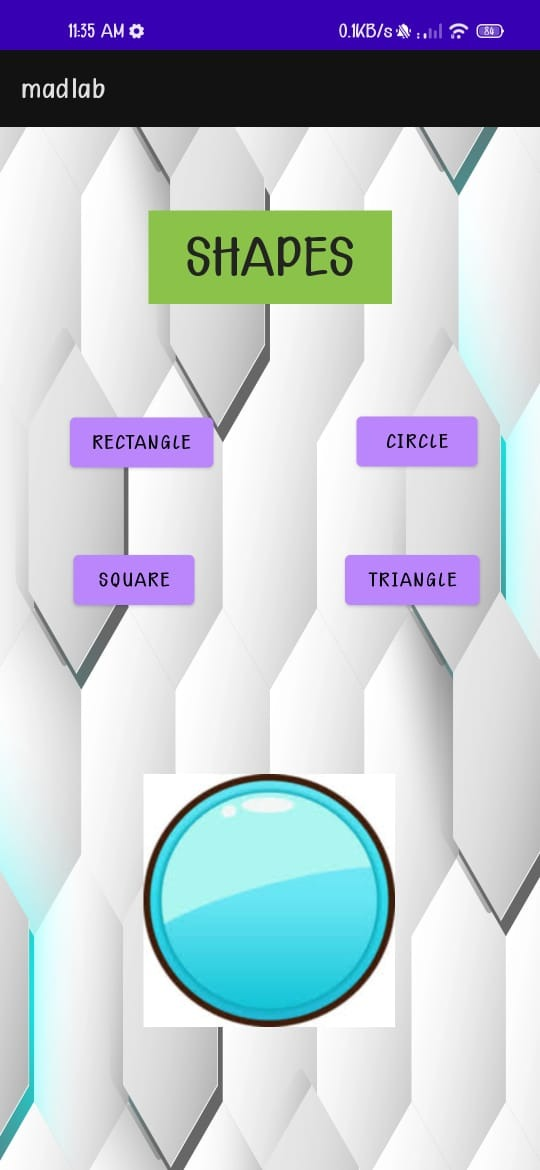
s.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

sqi.setImageResource(R.drawable.square);

**OUTPUT:**



**Ex.no: 07**

**CALCULATOR**

**AIM**  
 To create basic calculator using android studio

**CODE:**

**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="#000000"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="271dp"

android:layout\_height="69dp"

android:text="Calculator"

android:textAlignment="center"

android:textColor="#FFFFFF"

android:textSize="48sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.515"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.022" />

<EditText

android:id="@+id/num1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:hint="Number 1"

android:inputType="textPersonName"

android:minHeight="48dp"

android:textAlignment="center"

android:textColor="#FFFFFF"

android:textColorHint="#757575"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.509"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.186" />

<Button

android:id="@+id/sqrt"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:background="#000000"

android:text="root"

android:textColor="#FFFFFF"

android:textSize="20sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.283"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.787"

tools:ignore="TextContrastCheck" />

<Button

android:id="@+id/mult2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:background="#000000"

android:text="\*"

android:textColor="#FFFFFF"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.283"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.681"

tools:ignore="TextContrastCheck" />

<Button

android:id="@+id/div"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:background="#000000"

android:text="/"

android:textColor="#FFFFFF"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.728"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.681"

tools:ignore="TextContrastCheck" />

<Button

android:id="@+id/pow"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:background="#000000"

android:text="^"

android:textColor="#FFFFFF"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.728"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.787"

tools:ignore="TextContrastCheck" />

<TextView

android:id="@+id/ans"

android:layout\_width="275dp"

android:layout\_height="83dp"

android:text="NULL"

android:textAlignment="center"

android:textColor="#FFF8F8"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.516"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.419" />

<Button

android:id="@+id/add"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:background="#000000"

android:text="+"

android:textColor="#FFFFFF"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.283"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.571" />

<Button

android:id="@+id/sub"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:background="#000000"

android:text="-"

android:textColor="#FFFFFF"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.728"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.571"

tools:ignore="TextContrastCheck" />

<EditText

android:id="@+id/num2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:hint="Number 2"

android:inputType="textPersonName"

android:minHeight="48dp"

android:textAlignment="center"

android:textColor="#FFFFFF"

android:textColorHint="#757575"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.509"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.29" />

</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA**

package com.example.ex7;

import static org.json.JSONObject.NULL;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import java.lang.Math;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity{

TextView ans;

Button add, sub ,mult, div,sqrt,pow, clear;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

EditText t1=(EditText)findViewById(R.id.num1);

EditText t2=(EditText)findViewById(R.id.num2);

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

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

mult = (Button) findViewById(R.id.mult2);

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

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

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

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

ans = (TextView) findViewById(R.id.ans);

add.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

try{

int x=Integer.parseInt(t1.getText().toString());

int y=Integer.parseInt(t2.getText().toString());

int z;

z = x + y;

ans.setText("The Result Is " +z);

}

catch(Exception e){

ans.setText("Please enter value!!");

sub.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

try {

int x=Integer.parseInt(t1.getText().toString());

int y=Integer.parseInt(t2.getText().toString());

int z;

z = x - y;

ans.setText("The Result Is " +z);

}

catch(Exception e){

ans.setText("Please enter value!!");

mult.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

try {

int x=Integer.parseInt(t1.getText().toString());

int y=Integer.parseInt(t2.getText().toString());

int z;

z = x \* y;

ans.setText("The Result Is " +z);

}

catch(Exception e){

ans.setText("Please enter value!!");

div.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

try {

double x=Double.parseDouble(t1.getText().toString());

double y=Double.parseDouble(t2.getText().toString());

double z;

z = x / y;

ans.setText("The Result Is " +z);

}

catch(Exception e){

ans.setText("Please enter value!!");});

sqrt.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

try {

double x=Double.parseDouble(t1.getText().toString());

double y=Double.parseDouble(t2.getText().toString());

double z;

z = Math.pow(x,(1/y));

ans.setText("The Result Is " +z);

}

catch(Exception e){

pow.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

try {

double x=Double.parseDouble(t1.getText().toString());

double y=Double.parseDouble(t2.getText().toString());

double z;

z = Math.pow(x,y);

ans.setText("The Result Is " +z);

}

catch(Exception e){

ans.setText("Please enter value!!");

clear.setOnClickListener(new View.OnClickListener() {

@Override

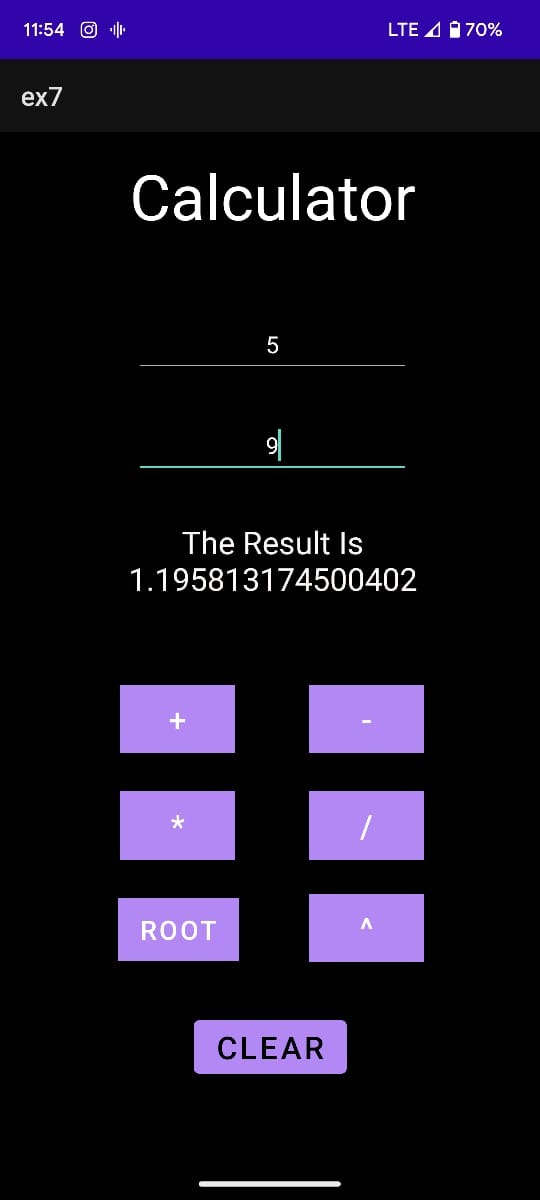
public void onClick(View v) {

ans.setText("NULL");

t1.setText("");

t2.setText("");

**OUTPUT:**



**Ex.no: 08**

**CURRENCY CONVERTOR**

**AIM**

To create a currency convertor application using android studio

**CODE**

**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="EURO"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.107"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.653" />

<Button

android:id="@+id/button2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="DHIRAM"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.498"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.653" />

<Button

android:id="@+id/button3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="YETTO"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.895"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.653" />

<TextView

android:id="@+id/textView2"

android:layout\_width="294dp"

android:layout\_height="60dp"

android:text="OUTPUT"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.649"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.803" />

<ImageView

android:id="@+id/imageView"

android:layout\_width="259dp"

android:layout\_height="218dp"

app:srcCompat="@drawable/dollar"

tools:layout\_editor\_absoluteX="76dp"

tools:layout\_editor\_absoluteY="16dp"

tools:ignore="MissingConstraints" />

<TextView

android:id="@+id/textView3"

android:layout\_width="262dp"

android:layout\_height="62dp"

android:fontFamily="sans-serif-black"

android:text="CURRENCY CONVERTER"

android:textAlignment="center"

android:textColor="#000000"

android:textSize="24sp"

android:textStyle="bold"

tools:layout\_editor\_absoluteX="76dp"

tools:layout\_editor\_absoluteY="249dp"

tools:ignore="MissingConstraints" />

<EditText

android:id="@+id/editTextTextPersonName2"

android:layout\_width="279dp"

android:layout\_height="52dp"

android:ems="10"

android:hint="INPUT "

android:inputType="textPersonName"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.575"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.524" />

</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA**

package com.example.currency\_convert;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

EditText INPUTINR;

Button EURO,DHIRAM,YETTO;

Integer INPUT;

double out;

String INPUTSTR,res;

TextView OUTPUT;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

INPUTINR = (EditText) findViewById(R.id.editTextTextPersonName2);

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

DHIRAM=(Button)findViewById(R.id.button2);

YETTO=(Button)findViewById(R.id.button3);

INPUTSTR=INPUTINR.getText().toString();

INPUT=Integer.parseInt(INPUTSTR);

EURO.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

out=INPUT\*0.011167;

res = String.valueOf(out);

OUTPUT.setText(res);

}

});

DHIRAM.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

out=INPUT/22.46;

res = String.valueOf(out);

OUTPUT.setText(res)

YETTO.setOnClickListener(new View.OnClickListener() {

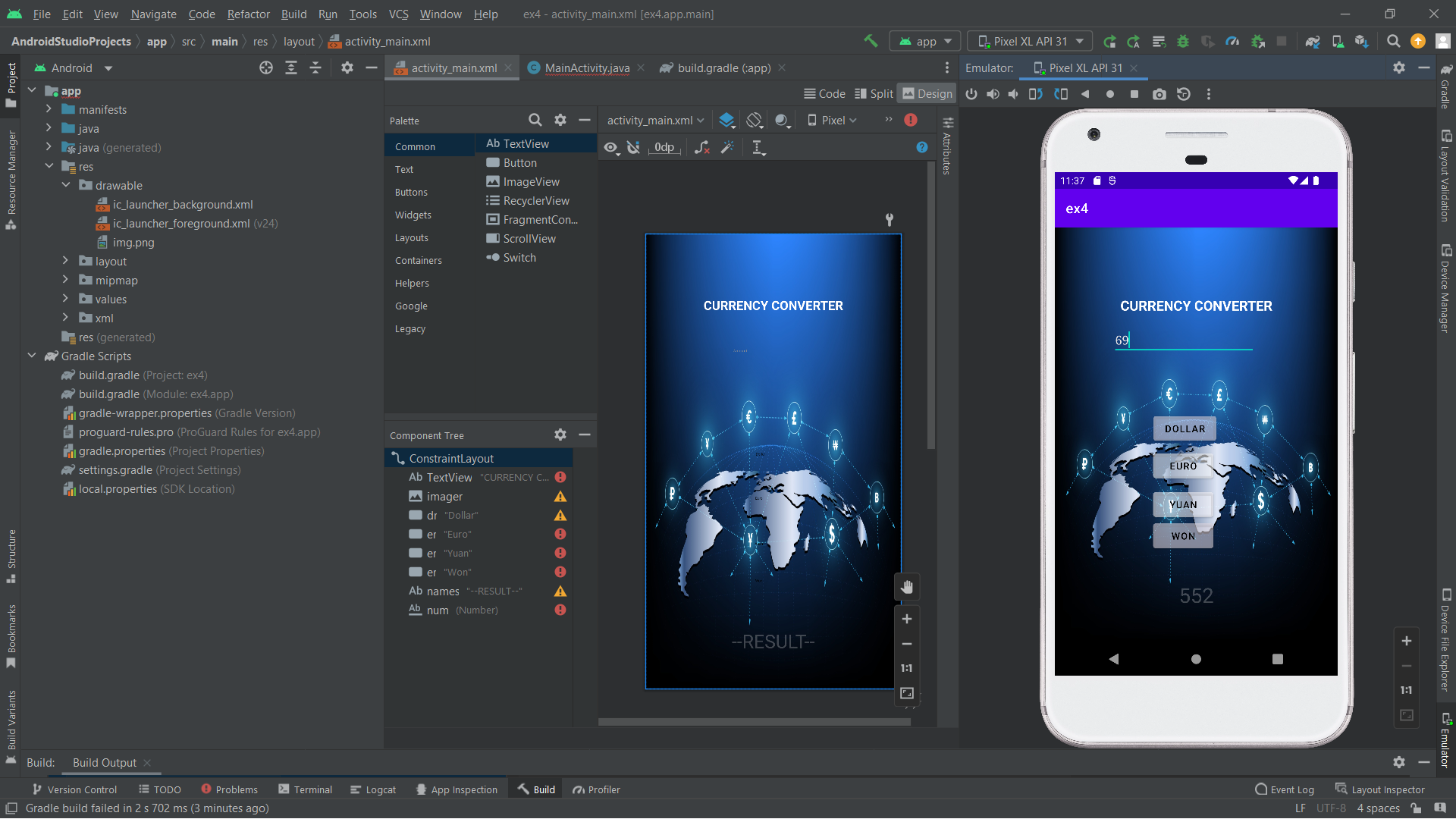
@Override

public void onClick(View v) {

out=INPUT\*1.58;

res = String.valueOf(out);

OUTPUT.setText(res);

**OUTPUT**  


**Ex.no:09**

**PAINT APP**

**AIM** To create a paint application that mimic the basic panit app using android studio

**CODE**

**XML**

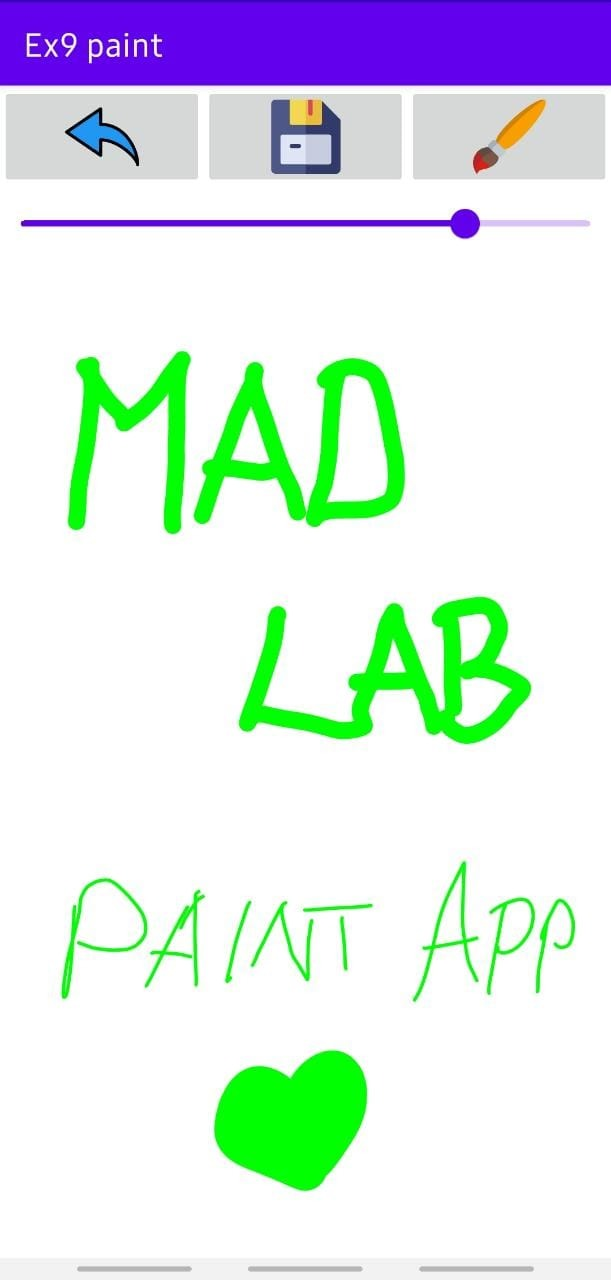
<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
 <LinearLayout  
 android:id="@+id/toolbar"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:background="@drawable/toolbar\_background"  
 android:gravity="center"  
 android:orientation="horizontal"  
 tools:ignore="UselessParent">  
 <ImageButton  
 android:id="@+id/red"  
 android:layout\_width="50dp"  
 android:layout\_height="50dp"  
 android:layout\_margin="18dp"  
 android:background="@drawable/red\_background"  
 <ImageButton  
 android:id="@+id/black"  
 android:layout\_width="50dp"  
 android:layout\_height="50dp"  
 android:layout\_margin="18dp"  
 android:background="@drawable/black\_backgorund"  
 ></ImageButton>  
 <ImageButton  
 android:id="@+id/blue"  
 android:layout\_width="50dp"  
 android:layout\_height="50dp"  
 android:layout\_margin="18dp"  
 android:background="@drawable/blue\_background"></ImageButton>  
 <ImageButton  
 android:id="@+id/white"  
 android:layout\_width="50dp"  
 android:layout\_height="50dp"  
 android:layout\_margin="18dp"  
 android:background="@drawable/white\_background">  
 </LinearLayout>  
 </RelativeLayout>

JAVA  
package com.example.paint  
import android.os.Bundle  
import android.widget.ImageButton  
import android.widget.Toast  
import androidx.appcompat.app.AppCompatActivity  
class MainActivity : AppCompatActivity() {  
 companion object**;** override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.activity\_main)  
 supportActionBar?.hide()  
  
 val redBtn = findViewById<ImageButton>(R.id.red)  
 val blackBtn = findViewById<ImageButton>(R.id.black)  
 val blueBtn = findViewById<ImageButton>(R.id.blue)  
 val whiteBtn = findViewById<ImageButton>(R.id.white)  
 redBtn.setOnClickListener **{** Toast.makeText(this**,** "Clicked"**,** Toast.LENGTH\_SHORT).show()  
 **}** blackBtn.setOnClickListener **{** Toast.makeText(this**,** "Clicked"**,** Toast.LENGTH\_SHORT).show()  
 **}** blueBtn.setOnClickListener **{** Toast.makeText(this**,** "Clicked"**,** Toast.LENGTH\_SHORT).show()  
 **}** whiteBtn.setOnClickListener **{** Toast.makeText(this**,** "Clicked"**,** Toast.LENGTH\_SHORT).show()  
 **}** }

**PAINT\_VIEW**

package com.example.paint**;**import android.content.Context**;**import android.graphics.Canvas**;**import android.graphics.Color**;**import android.graphics.Paint**;**import android.graphics.Path**;**import android.util.AttributeSet**;**import android.view.MotionEvent  
import android.view.View  
import android.view.ViewGroup  
import com.example.paint.MainActivity.Companion  
class PaintView : View{  
 var params : ViewGroup.LayoutParams? = null  
 companion object{  
 var pathList = ArrayList<**Path**>()  
 var colorList = ArrayList<**Int**>()  
 var currentBrush = Color.BLACK  
private fun init(){  
 paintBrush.isAntiAlies = true  
 paintBrush.color = currentBrush  
 paintBrush.style = Paint.Style.STROKE  
 paintBrush.strokeJoin = Paint.Join.ROUND  
 paintBrush.strokeWidth = **8f** params = ViewGroup.LayoutParams(ViewGroup.LayoutParams.MATCH\_PARENT**,**ViewGroup.LayoutParams.WRAP\_CONTENT)  
 override fun onTouchEvent(event: MotionEvent?): Boolean {  
 var x = event.x  
 var y = event.y  
 when(event.action){  
 MotionEvent.ACTION\_DOWN -> {  
 val path  
 path.moveTo(x**,**y)  
 return true  
 }  
 MotionEvent.ACTION\_MOVE ->{  
 val path  
 path.lineTo(x**,**y)  
 pathList.add(path)  
 val curretBrush  
 colorList.add(curretBrush)  
 }  
 else -> return false  
 postInvalidate()  
 return false  
 override fun onDraw(canvas: Canvas?) {  
 for (i in pathList.indices){  
 paintBrush.setColor(colorList[i])  
 canvas.drawPath(pathList[i]**,** paintBrush)  
 invalidate()

**OUTPUT**



**Ex.no:10**

**BAR GRAPH**

**AIM** To create a application to draw graph for the given values using android studio

**CODE:**

**XML**

**Activity main**  
<?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="#03A9F4"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="210dp"

android:layout\_height="50dp"

android:text="BAR GRAPH "

android:textAlignment="center"

android:textColor="#000000"

android:textSize="30sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.052" />

<EditText

android:id="@+id/cycling"

android:layout\_width="221dp"

android:layout\_height="47dp"

android:ems="10"

android:inputType="number"

android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.366"

tools:hint="TEST2" />

<EditText

android:id="@+id/bus"

android:layout\_width="221dp"

android:layout\_height="47dp"

android:ems="10"

android:inputType="number"

android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.505"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

tools:hint="TEST3" />

<EditText

android:id="@+id/trian"

android:layout\_width="221dp"

android:layout\_height="47dp"

android:ems="10"

android:inputType="number"

android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.505"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.767"

tools:hint="TEST5" />

<Button

android:id="@+id/submit"

android:layout\_width="107dp"

android:layout\_height="54dp"

android:backgroundTint="#1D4A1F"

android:text="SUBMIT"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.903" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Activity\_display**

<?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=".Display">

<com.github.mikephil.charting.charts.BarChart

android:id="@+id/fragment\_verticalbarchart\_chart"

android:layout\_width="match\_parent"

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

</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA**

package com.example.ex\_10\_graphs;

import androidx.annotation.NonNull;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

import android.graphics.Color;

import android.os.Bundle;

import com.github.mikephil.charting.charts.BarChart;

import com.github.mikephil.charting.data.BarData;

import com.github.mikephil.charting.data.BarDataSet;

import com.github.mikephil.charting.data.BarEntry;

import com.github.mikephil.charting.utils.ColorTemplate;

import java.util.ArrayList;

import java.util.List;

public class Display extends AppCompatActivity {

ArrayList barArraylist;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display);

Intent intent = getIntent();

String str = intent.getStringExtra("Walking");

String str1 = intent.getStringExtra("Cycle");

String str2 = intent.getStringExtra("Bus");

String str3 = intent.getStringExtra("Train");

String str4 = intent.getStringExtra("Car");

int walk = Integer.parseInt(str);

int cycle = Integer.parseInt(str1);

int car = Integer.parseInt(str4);

int bus = Integer.parseInt(str2);

int train = Integer.parseInt(str3);

BarChart barChart = findViewById(R.id.fragment\_verticalbarchart\_chart);

getData(walk,cycle,car,bus,train);

BarDataSet barDataSet = new BarDataSet(barArraylist,"Cambo Tutorial");

BarData barData = new BarData(barDataSet);

barChart.setData(barData);

//color bar data set

barDataSet.setColors(ColorTemplate.COLORFUL\_COLORS);

//text color

barDataSet.setValueTextColor(Color.BLACK);

//settting text size

barDataSet.setValueTextSize(16f);

barChart.getDescription().setEnabled(true);

}

private void getData(int walk,int cycle,int train,int bus,int car)

{

barArraylist = new ArrayList();

barArraylist.add(new BarEntry(2f,walk));

barArraylist.add(new BarEntry(3f,cycle));

barArraylist.add(new BarEntry(4f,train));

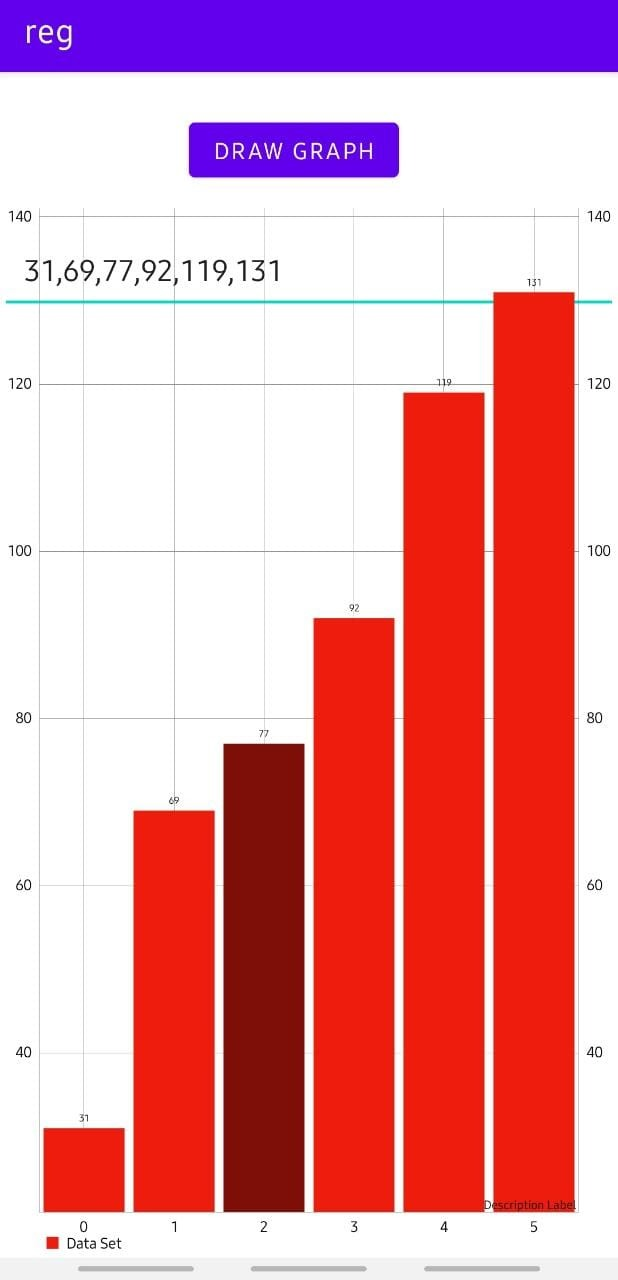
barArraylist.add(new BarEntry(5f,bus));

barArraylist.add(new BarEntry(6f,car));

}

}

**OUTPUT**



**Ex.no: 11**

**READ IMAGES FROM SD CARD**

**AIM**

To read the images from the SD card using Android studio

**XML  
Activity\_main**

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

<RelativeLayout

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

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

    android:layout\_width="match\_parent"

    android:layout\_height="match\_parent"

    android:layout\_gravity="center"

    android:gravity="center"

    android:orientation="vertical"

    tools:context=".MainActivity">

    <!--recycler view for displaying the list of images-->

    <androidx.recyclerview.widget.RecyclerView

        android:id="@+id/idRVImages"

        android:layout\_width="match\_parent"

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

</RelativeLayout>

JAVA

package com.example.myapplication;

import android.content.Context;

import androidx.test.platform.app.InstrumentationRegistry;

import androidx.test.ext.junit.runners.AndroidJUnit4;

import org.junit.Test;

import org.junit.runner.RunWith;

import static org.junit.Assert.\*;

/\*\*

 \* Instrumented test, which will execute on an Android device.

 \*

 \* @see <a href="http://d.android.com/tools/testing">Testing documentation</a>

 \*/

@RunWith(AndroidJUnit4.class)

public class ExampleInstrumentedTest {

    @Test

    public void useAppContext() {

        // Context of the app under test.

        Context appContext = InstrumentationRegistry.getInstrumentation().getTargetContext();

        assertEquals("com.example.myapplication", appContext.getPackageName());

    }

}

**Ex.no:12**

**READ CONTACTS FROM SD CARD**

**AIM**To read the contacts from the SD card and write the names, contact number, mail ID and notes, along with the profiles of the contact in other apps like WhatsAp, etc, into a text file using android studio

**JAVA**

**Main**

private List<Contact> readContactsFromSDCard() {

List<Contact> contacts = new ArrayList<>();

String filePath = Environment.getExternalStorageDirectory().toString() + "/contacts.txt";

File file = new File(filePath);

if (file.exists()) {

try {

BufferedReader br = new BufferedReader(new FileReader(file));

String line;

while ((line = br.readLine()) != null) {

String[] parts = line.split(",");

String name = parts[0];

String phoneNumber = parts[1];

contacts.add(new Contact(name, phoneNumber));

}

br.close();

} catch (IOException e) {

e.printStackTrace();

}

}

return contacts;

}

**CONTACT\_CLASS**public class Contact {

private String name;

private String phoneNumber

public Contact(String name, String phoneNumber) {

this.name = name;

this.phoneNumber = phoneNumber;

}

public String getName() {

return name;

}

public String getPhoneNumber() {

return phoneNumber;

}

}

**Ex.no:13**

**LOGIN WITH DATABASE CONNECTIVITY**

**AIM** To create a login page with database connectivity using android studio

**CODE  
XML**

**Activity main**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@drawable/img\_2"  
 tools:context=".MainActivity">  
 <TextView  
 android:id="@+id/view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="100dp"  
 android:gravity="center"  
 android:scaleType="centerCrop"  
 android:text="REGISTER"  
 android:textColor="@color/white"  
 android:textStyle="bold"  
 android:textSize="36sp"  
 />  
 <EditText  
 android:id="@+id/username"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="50dp"  
 android:hint="Username"  
 android:textColorHint="@color/white"  
 android:textSize="25dp"  
 android:layout\_below="@+id/view"  
 />  
 <EditText  
 android:id="@+id/password"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColorHint="@color/white"  
 android:hint="Password"  
 android:layout\_marginTop="50dp"  
 android:textSize="25dp"  
 android:layout\_below="@+id/username"  
 />  
 <EditText  
 android:id="@+id/repassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Renter Password"  
 android:textColorHint="@color/white"  
 android:layout\_marginTop="50dp"  
 android:textSize="25dp"  
 android:layout\_below="@+id/password"  
 />  
 <Button  
 android:id="@+id/btnSignUp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Sign Up"  
 android:textAllCaps="false"  
 android:layout\_below="@id/repassword"  
 android:backgroundTint="#ed176e"  
 android:textSize="25dp"  
 android:layout\_marginTop="24dp"  
 android:textColorHint="@color/white"  
 />  
 <Button  
 android:id="@+id/btnSignIn"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Sign In"  
 android:textAllCaps="false"  
 android:layout\_below="@id/btnSignUp"  
 android:backgroundTint="#ed176e"  
 android:textSize="25dp"  
 android:layout\_marginTop="24dp"  
 />  
</RelativeLayout>

**Main java**

package com.example.loginappp**;**import androidx.appcompat.app.AppCompatActivity**;**import android.content.Intent**;**import android.os.Bundle**;**import android.view.View**;**import android.widget.Button**;**import android.widget.EditText**;**import android.widget.Toast**;**public class MainActivity extends AppCompatActivity {  
 EditText username**,** password**,** repassword**;** Button btnSignUp**,** btnSignIn**;** DBHelper myDB**;** @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState)**;** setContentView(R.layout.*activity\_main*)**;** username = (EditText) findViewById(R.id.*username*)**;** password = (EditText) findViewById(R.id.*password*)**;** repassword = (EditText) findViewById(R.id.*repassword*)**;** btnSignUp = (Button) findViewById(R.id.*btnSignUp*)**;** btnSignIn = (Button) findViewById(R.id.*btnSignIn*)**;** myDB = new DBHelper(this)**;** btnSignUp.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String user = username.getText().toString()**;**

String pass = password.getText().toString()**;** String repass = repassword.getText().toString()**;** if (user.equals("") || pass.equals("") || repass.equals("")) {  
 Toast.*makeText*(MainActivity.this**,** "Fill all the Fields"**,** Toast.*LENGTH\_SHORT*).show()**;** } else {  
 if (pass.equals(repass)) {  
 Boolean usercheckResult = myDB.checkusername(user)**;** if (usercheckResult == false) {  
 Boolean regResult = myDB.insertData(user**,** pass)**;** if (regResult == true) {  
 Toast.*makeText*(MainActivity.this**,** "Registration Successful"**,** Toast.*LENGTH\_SHORT*).show()**;** Intent intent = new Intent(getApplicationContext()**,** LoginActivity.class)**;** startActivity(intent)**;** } else {  
 Toast.*makeText*(MainActivity.this**,** "Registration Unsuccessful"**,** Toast.*LENGTH\_SHORT*).show()**;** }  
 } else {  
 Toast.*makeText*(MainActivity.this**,** "User already Exists \n Please Sign In"**,** Toast.*LENGTH\_SHORT*).show()**;** }  
 } else {  
 Toast.*makeText*(MainActivity.this**,** "Password Not Matching"**,** Toast.*LENGTH\_SHORT*).show()**;** btnSignIn.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Intent intent = new Intent(getApplicationContext()**,** LoginActivity.class)**;** startActivity(intent)**;**

**Output:**



**login.xml**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@drawable/img\_2"  
 tools:context=".LoginActivity">  
 <TextView  
 android:id="@+id/View"  
 android:layout\_width="match\_parent"  
 android:layout\_height="180dp"  
 android:text="LOGIN"  
 android:textColor="@color/white"  
 android:textSize="26sp"  
 android:gravity="center"  
 android:textStyle="bold"  
 <EditText  
 android:id="@+id/usernameLogin"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Username"  
 android:layout\_marginTop="50dp"  
 android:textColorHint="@color/white"  
 android:layout\_below="@id/View"  
 android:textSize="25sp"  
 <EditText  
 android:id="@+id/passwordLogin"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColorHint="@color/white"  
 android:hint="Password"  
 android:layout\_marginTop="50dp"  
 android:layout\_below="@id/usernameLogin"  
 android:textSize="25sp"  
 <Button  
 android:id="@+id/btnLogin"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Login"  
 android:textSize="25sp"  
 android:textAllCaps="false"  
 android:layout\_below="@id/passwordLogin"  
 android:layout\_marginTop="50dp"  
 android:backgroundTint="#e11669  
</RelativeLayout>

**Login java**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@drawable/img\_2"  
 tools:context=".LoginActivity">  
 <TextView  
 android:id="@+id/View"  
 android:layout\_width="match\_parent"  
 android:layout\_height="180dp"  
 android:text="LOGIN"  
 android:textColor="@color/white"  
 android:textSize="26sp"  
 android:gravity="center"  
 android:textStyle="bold"  
 <EditText  
 android:id="@+id/usernameLogin"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Username"  
 android:layout\_marginTop="50dp"  
 android:textColorHint="@color/white"  
 android:layout\_below="@id/View"  
 android:textSize="25sp">

android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColorHint="@color/white"  
 android:hint="Password"  
 android:layout\_marginTop="50dp"  
 android:layout\_below="@id/usernameLogin"  
 android:textSize="25sp”  
 <Button  
 android:id="@+id/btnLogin"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Login"  
 android:textSize="25sp"  
 android:textAllCaps="false"  
 android:layout\_below="@id/passwordLogin"  
 android:layout\_marginTop="50dp"  
 android:backgroundTint="#e11669"

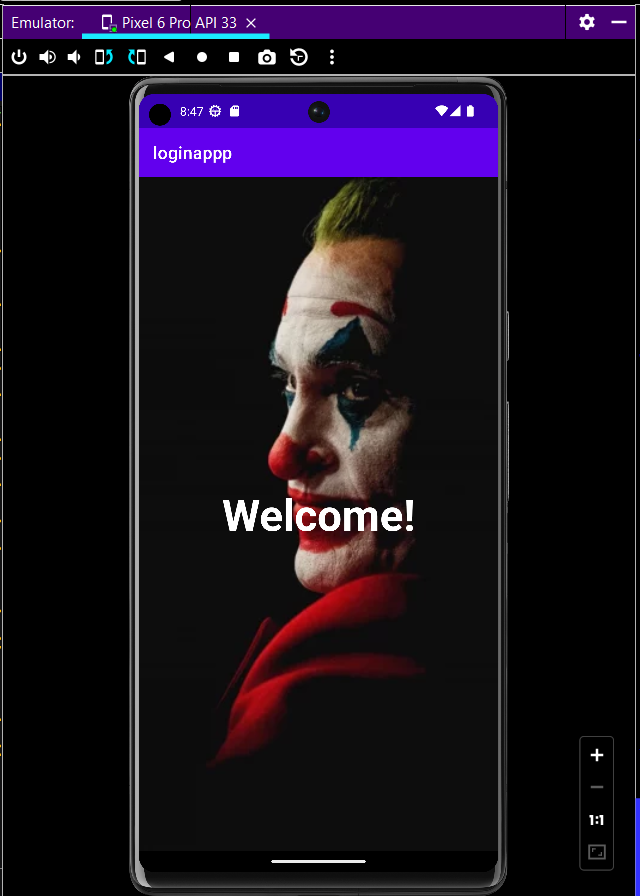
**OUTPUT**

**Home.xml**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@drawable/img"  
 tools:context=".HomeActivity">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:text="Welcome!"  
 android:textColor="@color/white"  
 android:textSize="50sp"  
 android:gravity="center"  
 android:layout\_centerInParent="true"  
 android:textStyle="bold" />  
</RelativeLayout>

String[]{username**,**password})**;** if (cursor.getCount()>**0**

**OUTPUT**



**DataBase.java**

package com.example.loginappp**;**import android.content.ContentValues**;**import android.content.Context**;**import android.database.Cursor**;**import android.database.sqlite.SQLiteDatabase**;**import android.database.sqlite.SQLiteOpenHelper**;**public class DBHelper extends SQLiteOpenHelper{  
 public DBHelper(Context context) {  
 super(context**,** "Login.db"**,** null**, 1**)**;**  
 @Override  
 public void onCreate(SQLiteDatabase myDB) {  
 myDB.execSQL("create Table users(username Text primary key, password Text)")**;**  
 @Override  
 public void onUpgrade(SQLiteDatabase myDB**,** int oldVersion**,** int newVersion) {  
 myDB.execSQL("drop Table if exists users")**;**  
 public Boolean insertData(String username**,** String password){  
 SQLiteDatabase myDB = this.getWritableDatabase()**;** ContentValues contentValues = new ContentValues()**;** contentValues.put("username"**,** username)**;** contentValues.put("password"**,**password)**;** long result = myDB.insert("users"**,** null**,** contentValues)**;** if(result == -**1**){  
 return false**;**  
 return true**;**  
 public Boolean checkusername(String username){  
 SQLiteDatabase myDB = this.getWritableDatabase()**;** Cursor cursor = myDB.rawQuery("select \* from users where username = ? "**,**new String[] {username})**;** if (cursor.getCount()>**0**){  
 return true**;**  else{  
 return false**;**  
 public Boolean checkusernamePassword(String username**,** String password){  
 SQLiteDatabase myDB = this.getWritableDatabase()**;** Cursor cursor = myDB.rawQuery("select \* from users where username = ? and password = ? "**,**new