**SD CARD**

// change permission in phone settings to allow storage for the app

activity java

package com.example.sdcard;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import java.io.BufferedReader;

import java.io.File;

import java.io.FileInputStream;

import java.io.FileOutputStream;

import java.io.InputStreamReader;

public class MainActivity extends AppCompatActivity

{

EditText e1;

Button write,read,clear;

@Override

protected void onCreate(Bundle savedInstanceState)

{

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

e1= (EditText) findViewById(R.id.editText);

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

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

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

write.setOnClickListener(new View.OnClickListener()

{

@Override

public void onClick(View v)

{

String message=e1.getText().toString();

try

{

File f=new File("/sdcard/myfile.txt");

f.createNewFile();

FileOutputStream fout=new FileOutputStream(f);

fout.write(message.getBytes());

fout.close();

Toast.makeText(getBaseContext(),"Data Written in SDCARD",Toast.LENGTH\_LONG).show();

}

catch (Exception e)

{

Toast.makeText(getBaseContext(),e.getMessage(),Toast.LENGTH\_LONG).show();

}

}

});

read.setOnClickListener(new View.OnClickListener()

{

@Override

public void onClick(View v)

{

String message;

String buf = "";

try

{

File f = new File("/sdcard/myfile.txt");

FileInputStream fin = new FileInputStream(f);

BufferedReader br = new BufferedReader(new InputStreamReader(fin));

while ((message = br.readLine()) != null)

{

buf += message;

}

e1.setText(buf);

br.close();

fin.close();

Toast.makeText(getBaseContext(),"Data Recived from SDCARD",Toast.LENGTH\_LONG).show();

}

catch (Exception e)

{

Toast.makeText(getBaseContext(), e.getMessage(), Toast.LENGTH\_LONG).show();

}

}

});

clear.setOnClickListener(new View.OnClickListener()

{

@Override

public void onClick(View v)

{

e1.setText("");

}

});

}

}

activity xml

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_margin="20dp"

android:orientation="vertical">

<EditText

android:id="@+id/editText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:singleLine="true"

android:textSize="30dp" />

<Button

android:id="@+id/button"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="10dp"

android:text="Write Data"

android:textSize="30dp" />

<Button

android:id="@+id/button2"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="10dp"

android:text="Read data"

android:textSize="30dp" />

<Button

android:id="@+id/button3"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="10dp"

android:text="Clear"

android:textSize="30dp" />

</LinearLayout>

android mainfest

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

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

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

<uses-permission android:name="android.permission.WRITE\_EXTERNAL\_STORAGE"></uses-permission>

<application

android:allowBackup="true"

android:dataExtractionRules="@xml/data\_extraction\_rules"

android:fullBackupContent="@xml/backup\_rules"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.SdCard"

tools:targetApi="31">

<activity

android:name=".MainActivity"

android:exported="true">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

<meta-data

android:name="android.app.lib\_name"

android:value="" />

</activity>

</application>

</manifest>

**NOTIFICATION**

activity 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="match\_parent"

android:layout\_height="wrap\_content"

android:gravity="center"

android:text="Enter the Message!!"

android:textSize="26dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.244" />

<EditText

android:id="@+id/e1"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginStart="8dp"

android:gravity="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.395" />

<Button

android:id="@+id/b1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

android:textSize="25dp"

android:text="NOTIFY"/>

</androidx.constraintlayout.widget.ConstraintLayout>

activity java

package com.example.gps;

import androidx.appcompat.app.AppCompatActivity;

import androidx.core.app.NotificationCompat;

import androidx.core.app.NotificationManagerCompat;

import android.app.Notification;

import android.app.NotificationChannel;

import android.app.NotificationManager;

import android.app.PendingIntent;

import android.content.Intent;

import android.os.Build;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

EditText ee1;

Button b;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

ee1 = (EditText) findViewById(R.id.e1);

b = (Button) findViewById(R.id.b1);

if (Build.VERSION.SDK\_INT >= Build.VERSION\_CODES.O)

{

NotificationChannel channel = new NotificationChannel("Hi","Hi",NotificationManager.IMPORTANCE\_DEFAULT);

NotificationManager manager = getSystemService(NotificationManager.class);

manager.createNotificationChannel(channel);

}

b.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

NotificationCompat.Builder builder = new NotificationCompat.Builder(MainActivity.this,"Hi");

builder.setContentTitle("Phew New message!!");

builder.setContentText(ee1.getText().toString());

builder.setSmallIcon(R.drawable.ic\_launcher\_background);

builder.setAutoCancel(true);

NotificationManagerCompat managerCompat = NotificationManagerCompat.from(MainActivity.this);

managerCompat.notify(1,builder.build());

}

});

}

}

**GPS**

activity\_main.xml

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

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

android:layout\_width = "fill\_parent"

android:layout\_height = "fill\_parent"

android:orientation = "vertical" >

<Button

android:id = "@+id/button"

android:layout\_width = "fill\_parent"

android:layout\_height = "wrap\_content"

android:text = "getlocation"/>

</LinearLayout>

mainactivity.java

package com.example.exercise\_08;

import android.Manifest;

import android.app.Activity;

import android.os.Bundle;

//import android.support.v4.app.ActivityCompat;

//import android.mock.MockPackageManager;

import android.content.pm.PackageManager;

import android.view.View;

import android.widget.Button;

import android.widget.Toast;

import androidx.core.app.ActivityCompat;

public class MainActivity extends Activity {

Button btnShowLocation;

private static final int REQUEST\_CODE\_PERMISSION = 2;

String mPermission = Manifest.permission.ACCESS\_FINE\_LOCATION;

// GPSTracker class

GPSTracker gps;

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

try {

if (ActivityCompat.checkSelfPermission(this, mPermission)

!= PackageManager.PERMISSION\_GRANTED) {

ActivityCompat.requestPermissions(this, new String[]{mPermission},

REQUEST\_CODE\_PERMISSION);

// If any permission above not allowed by user, this condition will

// execute every time, else your else part will work

}

} catch (Exception e) {

e.printStackTrace();

}

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

// show location button click event

btnShowLocation.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View arg0) {

// create class object

gps = new GPSTracker(MainActivity.this);

// check if GPS enabled

if(gps.canGetLocation()){

double latitude = gps.getLatitude();

double longitude = gps.getLongitude();

// \n is for new line

Toast.makeText(getApplicationContext(), "Your Location is - \nLat: "

+ latitude + "\nLong: " + longitude, Toast.LENGTH\_LONG).show();

}else{

// can't get location

// GPS or Network is not enabled

// Ask user to enable GPS/network in settings

gps.showSettingsAlert();

}

}

});

}

}

androidmanifest.xml

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

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

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

package="com.example.exercise\_08">

<uses-permission android:name="android.permission.ACCESS\_COARSE\_LOCATION" />

<uses-permission android:name="android.permission.ACCESS\_FINE\_LOCATION" />

<uses-permission android:name="android.permission.INTERNET" />

<application

android:allowBackup="true"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:supportsRtl="true"

android:theme="@style/Theme.Exercise\_08">

<activity

android:name=".GPSTracker"

android:exported="false">

<meta-data

android:name="android.app.lib\_name"

android:value="" />

</activity>

<activity

android:name=".MainActivity"

android:exported="true">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

</application>

</manifest>

activity\_gpstracker.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=".GPSTracker">

</androidx.constraintlayout.widget.ConstraintLayout>

GPSTracker.java (second actvity)

package com.example.exercise\_08;

import android.app.AlertDialog;

import android.app.Service;

import android.content.Context;

import android.content.DialogInterface;

import android.content.Intent;

import android.location.Location;

import android.location.LocationListener;

import android.location.LocationManager;

import android.os.Bundle;

import android.os.IBinder;

import android.provider.Settings;

import android.util.Log;

public class GPSTracker extends Service implements LocationListener {

private final Context mContext;

// flag for GPS status

boolean isGPSEnabled = false;

// flag for network status

boolean isNetworkEnabled = false;

// flag for GPS status

boolean canGetLocation = false;

Location location; // location

double latitude; // latitude

double longitude; // longitude

// The minimum distance to change Updates in meters

private static final long MIN\_DISTANCE\_CHANGE\_FOR\_UPDATES = 10; // 10 meters

// The minimum time between updates in milliseconds

private static final long MIN\_TIME\_BW\_UPDATES = 1000 \* 60 \* 1; // 1 minute

// Declaring a Location Manager

protected LocationManager locationManager;

public GPSTracker(Context context) {

this.mContext = context;

getLocation();

}

public Location getLocation() {

try {

locationManager = (LocationManager) mContext.getSystemService(LOCATION\_SERVICE);

// getting GPS status

isGPSEnabled = locationManager.isProviderEnabled(LocationManager.GPS\_PROVIDER);

// getting network status

isNetworkEnabled = locationManager

.isProviderEnabled(LocationManager.NETWORK\_PROVIDER);

if (!isGPSEnabled && !isNetworkEnabled) {

// no network provider is enabled

} else {

this.canGetLocation = true;

// First get location from Network Provider

if (isNetworkEnabled) {

locationManager.requestLocationUpdates(

LocationManager.NETWORK\_PROVIDER,

MIN\_TIME\_BW\_UPDATES,

MIN\_DISTANCE\_CHANGE\_FOR\_UPDATES, this);

Log.d("Network", "Network");

if (locationManager != null) {

location = locationManager

.getLastKnownLocation(LocationManager.NETWORK\_PROVIDER);

if (location != null) {

latitude = location.getLatitude();

longitude = location.getLongitude();

}

}

}

// if GPS Enabled get lat/long using GPS Services

if (isGPSEnabled) {

if (location == null) {

locationManager.requestLocationUpdates(

LocationManager.GPS\_PROVIDER,

MIN\_TIME\_BW\_UPDATES,

MIN\_DISTANCE\_CHANGE\_FOR\_UPDATES, this);

Log.d("GPS Enabled", "GPS Enabled");

if (locationManager != null) {

location = locationManager

.getLastKnownLocation(LocationManager.GPS\_PROVIDER);

if (location != null) {

latitude = location.getLatitude();

longitude = location.getLongitude();

}

}

}

}

}

} catch (Exception e) {

e.printStackTrace();

}

return location;

}

/\*\*

\* Stop using GPS listener

\* Calling this function will stop using GPS in your app

\* \*/

public void stopUsingGPS(){

if(locationManager != null){

locationManager.removeUpdates(GPSTracker.this);

}

}

/\*\*

\* Function to get latitude

\* \*/

public double getLatitude(){

if(location != null){

latitude = location.getLatitude();

}

// return latitude

return latitude;

}

/\*\*

\* Function to get longitude

\* \*/

public double getLongitude(){

if(location != null){

longitude = location.getLongitude();

}

// return longitude

return longitude;

}

/\*\*

\* Function to check GPS/wifi enabled

\* @return boolean

\* \*/

public boolean canGetLocation() {

return this.canGetLocation;

}

/\*\*

\* Function to show settings alert dialog

\* On pressing Settings button will lauch Settings Options

\* \*/

public void showSettingsAlert(){

AlertDialog.Builder alertDialog = new AlertDialog.Builder(mContext);

// Setting Dialog Title

alertDialog.setTitle("GPS is settings");

// Setting Dialog Message

alertDialog.setMessage("GPS is not enabled. Do you want to go to settings menu?");

// On pressing Settings button

alertDialog.setPositiveButton("Settings", new DialogInterface.OnClickListener() {

public void onClick(DialogInterface dialog,int which) {

Intent intent = new Intent(Settings.ACTION\_LOCATION\_SOURCE\_SETTINGS);

mContext.startActivity(intent);

}

});

// on pressing cancel button

alertDialog.setNegativeButton("Cancel", new DialogInterface.OnClickListener() {

public void onClick(DialogInterface dialog, int which) {

dialog.cancel();

}

});

// Showing Alert Message

alertDialog.show();

}

@Override

public void onLocationChanged(Location location) {

}

@Override

public void onProviderDisabled(String provider) {

}

@Override

public void onProviderEnabled(String provider) {

}

@Override

public void onStatusChanged(String provider, int status, Bundle extras) {

}

@Override

public IBinder onBind(Intent arg0) {

return null;

}

}

**MULTI THREAD**

// paste images in app->res->drawable

activity xml

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:layout\_margin="20dp"

android:layout\_gravity="center">

<ImageView

android:layout\_width="250dp"

android:layout\_height="250dp"

android:layout\_gravity="center"

android:id="@+id/imageview"

android:layout\_weight="1"

android:layout\_margin="10dp"/>

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:id="@+id/bt1"

android:layout\_weight="1"

android:text="load image 1"

/>

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:id="@+id/bt2"

android:layout\_weight="1"

android:text="load image 1"

/>

</LinearLayout>

activity java

package com.example.prac2;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {

ImageView img;

Button bt1,bt2;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

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

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

bt2 = (Button) findViewById(R.id.bt2);

bt1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

new Thread(new Runnable() {

@Override

public void run() {

img.post(new Runnable() {

@Override

public void run() {

img.setImageResource(R.drawable.india1);

}

});

}

}).start();

}

});

bt2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

new Thread(new Runnable() {

@Override

public void run() {

img.post(new Runnable() {

@Override

public void run() {

img.setImageResource(R.drawable.india2);

}

});

}

}).start();

}

});

}

}

**GRAPHICAL PRIMITIVES**

XML

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

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

android:layout\_width="match\_parent"

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

<ImageView

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:id="@+id/imageView" />

</RelativeLayout>

JAVA

package com.example.exno4;

import android.app.Activity;

import android.graphics.Bitmap;

import android.graphics.Canvas;

import android.graphics.Color;

import android.graphics.Paint;

import android.graphics.drawable.BitmapDrawable;

import android.os.Bundle;

import android.widget.ImageView;

public class MainActivity extends Activity

{

@Override

public void onCreate(Bundle savedInstanceState)

{

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

//Creating a Bitmap

Bitmap bg = Bitmap.createBitmap(720, 1280, Bitmap.Config.ARGB\_8888);

//Setting the Bitmap as background for the ImageView

ImageView i = (ImageView) findViewById(R.id.imageView);

i.setBackgroundDrawable(new BitmapDrawable(bg));

//Creating the Canvas Object

Canvas canvas = new Canvas(bg);

//Creating the Paint Object and set its color & TextSize

Paint paint = new Paint();

paint.setColor(Color.BLUE);

paint.setTextSize(50);

//To draw a Rectangle

canvas.drawText("Rectangle", 420, 150, paint);

canvas.drawRect(400, 200, 650, 700, paint);

//To draw a Circle

canvas.drawText("Circle", 120, 150, paint);

canvas.drawCircle(200, 350, 150, paint);

//To draw a Square

canvas.drawText("Square", 120, 800, paint);

canvas.drawRect(50, 850, 350, 1150, paint);

//To draw a Line

canvas.drawText("Line", 480, 800, paint);

canvas.drawLine(520, 850, 520, 1150, paint);

}

}

**GMAIL**

// login in to ur gamil to send mail in avd

activity xml

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:paddingLeft="20dp"

android:paddingRight="20dp"

android:orientation="vertical" >

<EditText

android:id="@+id/txtTo"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="To"/>

<EditText

android:id="@+id/txtSub"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Subject"/>

<EditText

android:id="@+id/txtMsg"

android:layout\_width="match\_parent"

android:layout\_height="0dp"

android:layout\_weight="1"

android:gravity="top"

android:hint="Message"/>

<Button

android:layout\_width="100dp"

android:layout\_height="wrap\_content"

android:layout\_gravity="right"

android:text="Send"

android:id="@+id/btnSend"/>

</LinearLayout>

activity java

package com.example.email;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText eTo;

private EditText eSubject;

private EditText eMsg;

private Button btn;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

eTo = (EditText)findViewById(R.id.txtTo);

eSubject = (EditText)findViewById(R.id.txtSub);

eMsg = (EditText)findViewById(R.id.txtMsg);

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

btn.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

Intent it = new Intent(Intent.ACTION\_SEND);

it.putExtra(Intent.EXTRA\_EMAIL, new String[]{eTo.getText().toString()});

it.putExtra(Intent.EXTRA\_SUBJECT,eSubject.getText().toString());

it.putExtra(Intent.EXTRA\_TEXT,eMsg.getText());

it.setType("message/rfc822");

startActivity(Intent.createChooser(it,"Choose Mail App"));

}

});

}

}

android manifest

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

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

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

<application

android:allowBackup="true"

android:dataExtractionRules="@xml/data\_extraction\_rules"

android:fullBackupContent="@xml/backup\_rules"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.Email"

tools:targetApi="31">

<activity

android:name=".MainActivity"

android:exported="true">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

<action android:name="android.intent.action.SEND"/>

<category android:name="android.intent.category.DEFAULT"/>

<data android:mimeType="message/rfc822"/>

</intent-filter>

<meta-data

android:name="android.app.lib\_name"

android:value="" />

</activity>

</application>

</manifest>

**CALCULATOR**

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

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

android:layout\_width="match\_parent"

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

<EditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="-4dp"

android:layout\_marginBottom="648dp"

android:id="@+id/num1"/>

<EditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="-2dp"

android:id="@+id/num2"

android:layout\_marginBottom="589dp" />

<Button

android:id="@+id/add"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="161dp"

android:layout\_marginBottom="346dp"

android:text="add" />

<TextView

android:id="@+id/result"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="165dp"

android:layout\_marginBottom="447dp"

android:text="Result"

android:textSize="30dp" />

</RelativeLayout>

MainActivity.java

package com.example.t1;

import androidx.appcompat.app.AppCompatActivity;

import android.graphics.Bitmap;

import android.graphics.Canvas;

import android.graphics.Color;

import android.graphics.Paint;

import android.graphics.drawable.BitmapDrawable;

import android.os.Bundle;

import android.text.TextUtils;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.ImageView;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

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

EditText Num1 = (EditText) findViewById(R.id.num1);

EditText Num2 = (EditText) findViewById(R.id.num2);

Button b1 = (Button) findViewById(R.id.add);

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

float temp1=0;

float temp2=0;

float temp3=0;

temp1=Float.parseFloat(Num1.getText().toString());

temp2=Float.parseFloat(Num2.getText().toString());

temp3=temp1+temp2;

Res.setText(temp3+"");

}

});

}

}

**DATABASE**

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

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<EditText

android:id="@+id/e1"

android:layout\_width="179dp"

android:layout\_height="46dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.788"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.351" />

<EditText

android:id="@+id/e2"

android:layout\_width="166dp"

android:layout\_height="52dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.746"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.441" />

<EditText

android:id="@+id/e3"

android:layout\_width="142dp"

android:layout\_height="44dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.701"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.536" />

<TextView

android:id="@+id/roll"

android:layout\_width="110dp"

android:layout\_height="48dp"

android:text="Rollno:"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.192"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.445" />

<TextView

android:id="@+id/dept"

android:layout\_width="110dp"

android:layout\_height="48dp"

android:text="dept"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.192"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.534" />

<TextView

android:layout\_width="252dp"

android:layout\_height="48dp"

android:text="DATAbase"

android:gravity="center"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.425"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.227" />

<TextView

android:id="@+id/name"

android:layout\_width="110dp"

android:layout\_height="48dp"

android:text="name"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.192"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.353" />

<Button

android:id="@+id/insert"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="insert"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.264"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.66" />

<Button

android:id="@+id/viewall"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="viewall"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.637"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.761" />

<Button

android:id="@+id/update"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="update"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.264"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.761" />

<Button

android:id="@+id/delete"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="delete"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.637"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.66" />

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.gps;

import androidx.appcompat.app.AppCompatActivity;

import android.app.AlertDialog;

import android.content.Context;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

EditText e1,e2,e3;

Button b1,b2,b3,b4;

SQLiteDatabase db;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

e1 = findViewById(R.id.e1);

e2 = findViewById(R.id.e2);

e3 = findViewById(R.id.e3);

b1 = findViewById(R.id.insert);

b2 = findViewById(R.id.delete);

b3 = findViewById(R.id.update);

b4 = findViewById(R.id.viewall);

db = openOrCreateDatabase("Studentdb", Context.MODE\_PRIVATE,null);

db.execSQL("CREATE TABLE IF NOT EXISTS student(name varchar,rollno varchar,dept varchar)");

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

db.execSQL("Insert into student values ('"+e1.getText()+"','"+e2.getText()+"','"+e3.getText()+"')");

showMessage("SUCCESS","DATA inserted successfully!!!");

cleartext();

}

});

b2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

db.execSQL("delete from student where rollno= '"+e2.getText()+"' ");

showMessage("SUCCESS","DATA deleted successfully!!!");

cleartext();

}

});

b3.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Cursor c = db.rawQuery("Select \* from student where rollno ='"+e1.getText()+"'",null);

if(c.moveToFirst())

{

db.execSQL("update student set name = '"+e1.getText()+"',dept = '"+e3.getText()+"' where rollno = '"+e2.getText()+"'");

showMessage("SUCCESS","Record updated!!");

}

cleartext();

}

});

b4.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Cursor c=db.rawQuery("SELECT \* FROM student", null);

StringBuffer buffer=new StringBuffer();

while(c.moveToNext())

{

buffer.append("Rollno: "+c.getString(0)+"\n");

buffer.append("Name: "+c.getString(1)+"\n");

buffer.append("Marks: "+c.getString(2)+"\n\n");

}

showMessage("Student Details", 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();

}

public void cleartext()

{

e1.setText("");

e2.setText("");

e3.setText("");

e1.requestFocus();

}

}

**GUI,FONTS**

Activity\_main.xml

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

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

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical"

android:layout\_margin="50dp"

android:layout\_gravity="center">

<TextView

android:id="@+id/text1"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="30dp"

android:gravity="center"

android:text="Hello World!!! Welcome to MAD LAB !!!"

android:textSize="30dp"

android:textColor="@color/black"/>

<Button

android:id="@+id/button1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:text="Click to view the change"

android:gravity="center"/>

</LinearLayout>

Mainactivity.java

package com.example.hello\_world;

import androidx.appcompat.app.AppCompatActivity;

import android.graphics.Color;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

TextView t= (TextView) findViewById(R.id.text1);

Button B= (Button) findViewById(R.id.button1);

B.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

t.setTextColor(Color.orange);

}

});

}

}

**LAYOUT MANAGERS AND EVENT LISTENERS**

activity\_main.xml

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

<LinearLayout 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:orientation="vertical"

tools:context=".MainActivity"

>

<EditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/t1"/>

<Spinner

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/s1"/>

<Button

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/b1"

/>

</LinearLayout>

activity\_second.xml

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".SecondActivity"

android:orientation="vertical">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:id="@+id/t1"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:id="@+id/t2"/>

</LinearLayout>

Mainactivity.java

package com.example.gps;

import androidx.appcompat.app.AppCompatActivity;

import androidx.core.app.NotificationCompat;

import androidx.core.app.NotificationManagerCompat;

import android.content.Intent;

import android.graphics.Bitmap;

import android.graphics.Canvas;

import android.graphics.Color;

import android.graphics.Paint;

import android.graphics.drawable.BitmapDrawable;

import android.os.Bundle;

import android.view.View;

import android.widget.ArrayAdapter;

import android.widget.Button;

import android.widget.EditText;

import android.widget.ImageView;

import android.widget.Spinner;

public class MainActivity extends AppCompatActivity {

EditText e1;

Spinner ss1;

Button b1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

String[] dept = {"IT","CSE"};

e1 = (EditText) findViewById(R.id.t1);

ss1 = (Spinner) findViewById(R.id.s1);

b1 = (Button ) findViewById(R.id.b1);

ArrayAdapter adapter = new ArrayAdapter(MainActivity.this, android.R.layout.simple\_spinner\_item,dept);

ss1.setAdapter(adapter);

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

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

String name = e1.getText().toString();

String dep=ss1.getSelectedItem().toString();

i.putExtra("name",name);

i.putExtra("dept",dep);

startActivity(i);

}

});

}

}

SecondActivity.java

package com.example.gps;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.widget.TextView;

public class SecondActivity extends AppCompatActivity {

TextView tt1, tt2;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

tt1 = (TextView) findViewById(R.id.t1);

tt2 = (TextView) findViewById(R.id.t2);

Intent i = getIntent();

String name,dep;

name = i.getStringExtra("name");

dep = i.getStringExtra("dept");

tt1.setText(name);

tt2.setText(dep);

}

}