Normal toast message:

Java:

package com.example.practice1;

import androidx.appcompat.app.AppCompatActivity;

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 input1; //input of the text

Button input2;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

input1 = findViewById(R.id.editTextText);

input2 = findViewById(R.id.button);

input2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showtoast();

}

});

}

public void showtoast(){

String str= input1.getText().toString().trim();

int len=str.length();

String st2 = Integer.valueOf(len).toString();

Toast.makeText(this, "Hello "+str, Toast.LENGTH\_SHORT).show();

Toast.makeText(this, "Hello "+str +st2, Toast.LENGTH\_SHORT).show(); }}

XML:

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

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="191dp"

android:layout\_height="0dp"

android:layout\_marginStart="23dp"

android:layout\_marginTop="57dp"

android:layout\_marginBottom="144dp"

android:text="enter ur name:"

android:textSize="25dp"

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

app:layout\_constraintStart\_toStartOf="parent"

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

<EditText

android:id="@+id/editTextText"

android:layout\_width="324dp"

android:layout\_height="169dp"

android:layout\_marginStart="30dp"

android:layout\_marginBottom="545dp"

android:ems="10"

android:hint="eg:aku"

android:inputType="text"

android:text=""

app:layout\_constraintBottom\_toBottomOf="parent"

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

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

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginEnd="42dp"

android:layout\_marginBottom="426dp"

android:text="Button"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="@+id/editTextText"

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

<CheckBox

android:id="@+id/checkBox"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="CheckBox"

tools:layout\_editor\_absoluteX="53dp"

tools:layout\_editor\_absoluteY="258dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

BMI:

package com.example.prac2;

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 MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button btn;

EditText input1, input2 , input3;

TextView res;

input1 = findViewById(R.id.editTextText);

input2 = findViewById(R.id.editTextText2);

input3 = findViewById(R.id.editTextText3);

btn=findViewById(R.id.button);

res=findViewById(R.id.textView6);

btn.setOnClickListener(new View.OnClickListener()

{

@Override

public void onClick(View v) {

int wt= Integer.parseInt(input1.getText().toString().trim());

res.setText("underweight "+ wt );

}

});

}}

INTENT with list view:

MainActivity1.java

package com.example.intent;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button btnNext;

btnNext = findViewById(R.id.button);

Intent iNext= new Intent(MainActivity.this,MainActivity2.class);

btnNext.setOnClickListener(new View.OnClickListener()

{

@Override

public void onClick(View v) {

startActivity(iNext);

}

});

}

}

MainActivity2.java: (ListView)

package com.example.intent;

import androidx.appcompat.app.AppCompatActivity;

import androidx.appcompat.view.menu.MenuBuilder;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import android.widget.Toast;

import java.util.ArrayList;

public class MainActivity2 extends AppCompatActivity {

ArrayList<String> arrName=new ArrayList<> ();

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main2);

ListView listView1;

listView1 = findViewById(R.id.listView);

int[] arrNo = new int[]{1, 2, 3, 4, 5};

ArrayList<String> arrName = new ArrayList<>();

arrName.add("person1");

arrName.add("person2");

arrName.add("person13");

arrName.add("person14");

arrName.add("person15");

arrName.add("person16");

arrName.add("person17");

arrName.add("person18");

arrName.add("person19");

arrName.add("person10");

arrName.add("person111");

arrName.add("person112");

arrName.add("person113");

arrName.add("person114");

arrName.add("person115");

arrName.add("person116");

arrName.add("person117");

ArrayAdapter<String> adapter = new ArrayAdapter<>(getApplication(), android.R.layout.simple\_list\_item\_1, arrName);

listView1.setAdapter(adapter);

listView1.setOnItemClickListener(new AdapterView.OnItemClickListener() {

@Override

public void onItemClick(AdapterView<?> adapterView, View view, int position, long l)

{

if (position==0)

{

Toast.makeText(MainActivity2.this, "Item1 clicked", Toast.LENGTH\_SHORT).show();

}

}

});

}}

MainAct.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="NEXT"

app:layout\_constraintBottom\_toBottomOf="parent"

tools:layout\_editor\_absoluteX="162dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

MainAct2.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=".MainActivity2">

<LinearLayout

android:id="@+id/linearLayout"

android:layout\_width="0dp"

android:layout\_height="0dp"

android:layout\_marginStart="1dp"

android:layout\_marginTop="1dp"

android:layout\_marginEnd="1dp"

android:layout\_marginBottom="1dp"

android:orientation="vertical"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

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

<ListView

android:id="@+id/listView"

android:layout\_width="match\_parent"

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

</LinearLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

SPINNER:

Main.java

package com.example.spinner2;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;

import android.os.Bundle;

import android.view.View;

import android.widget.Spinner;

import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import android.widget.Toast;

import java.util.ArrayList;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

Spinner spinner;

ArrayList<String> arrId=new ArrayList<> ();

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

spinner = findViewById(R.id.spinner);

arrId.add("person1");

arrId.add("person2");

arrId.add("person3");

arrId.add("person4");

arrId.add("person5");

ArrayAdapter<String> spinnerAdapter = new ArrayAdapter<>(this,android.R.layout.simple\_spinner\_dropdown\_item,arrId);

spinner.setAdapter(spinnerAdapter);

}

}

Spinner Main.XML :

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

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Spinner

android:id="@+id/spinner"

android:layout\_width="395dp"

android:layout\_height="198dp"

android:layout\_marginStart="1dp"

android:layout\_marginTop="301dp"

android:layout\_marginEnd="1dp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

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

</androidx.constraintlayout.widget.ConstraintLayout>

ALERT DIALOG :

Java

package com.example.alertdialog;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.content.DialogInterface;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

Button mybutton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

mybutton = findViewById(R.id.button);

mybutton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

//Show dialog

AlertDialog dialog=createDialog();

dialog.show();

}

});

}

AlertDialog createDialog(){

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

builder.setMessage("Do u want to do?");

builder.setPositiveButton("yes", new DialogInterface.OnClickListener() {

@Override

public void onClick(DialogInterface dialog, int i) {

Toast.makeText(MainActivity.this, "clicked yes", Toast.LENGTH\_SHORT).show();

}

});

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

@Override

public void onClick(DialogInterface dialog, int i) {

Toast.makeText(MainActivity.this, "clicked no", Toast.LENGTH\_SHORT).show();

}

});

return builder.create();

}

}

ALERT DIALOG :

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" >

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Click"

tools:layout\_editor\_absoluteX="119dp"

tools:layout\_editor\_absoluteY="210dp" />

</RelativeLayout>

NOTIFICATION :

package com.example.notification;  
  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.content.res.ResourcesCompat;  
  
import android.app.Notification;  
import android.app.NotificationChannel;  
import android.app.NotificationManager;  
import android.graphics.Bitmap;  
import android.graphics.drawable.BitmapDrawable;  
import android.graphics.drawable.Drawable;  
import android.graphics.drawable.Icon;  
import android.os.Build;  
import android.os.Bundle;  
  
public class MainActivity extends AppCompatActivity {  
 private static final String *CHANNEL\_ID*="MyChannel";  
  
 private static final int *NOTIFICATION\_ID*=100;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 Drawable drawable = ResourcesCompat.*getDrawable*(getResources(),R.drawable.*new\_icon*,null);  
 BitmapDrawable bitmapDrawable=(BitmapDrawable) drawable;  
 Bitmap largeIcon=BitmapDrawable.getBitmap();  
  
 NotificationManager nm=(NotificationManager) getSystemService(*NOTIFICATION\_SERVICE*);  
  
 if (Build.VERSION.*SDK\_INT* >= Build.VERSION\_CODES.*O*) {  
 Icon largIcon = null;  
 Notification notification = new Notification.Builder(this)  
 .setLargeIcon(largIcon)  
 .setSmallIcon(R.drawable.*new\_icon*)  
 .setContentText("New message")  
 .setSubText("new message from aku")  
 .setChannelId(*CHANNEL\_ID*)  
 .build();  
 nm.createNotificationChannel(new NotificationChannel(*CHANNEL\_ID*,"new channel",NotificationManager.*IMPORTANCE\_HIGH*));  
 nm.notify(*NOTIFICATION\_ID*,notification);  
 }  
 else {  
 Icon largIcon = null;  
 Notification notification = new Notification.Builder(this)  
 .setLargeIcon(largIcon)  
 .setSmallIcon(R.drawable.*new\_icon*)  
 .setContentText("New message")  
 .setSubText("new message from aku")  
  
 .build();  
 nm.notify(*NOTIFICATION\_ID*,notification);  
 }  
 }  
}

>>X………>>>X……..>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

**TO create table and insert value:**

mainActivity.java:

package com.example.sqlite2;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.content.Intent;

import android.widget.Toast;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

DatabaseHelper mydb;

EditText editName, editSurname, editMarks,editTextId;

Button btnAddData;

Button btnviewAll;

Button btnviewDelete;

Button btnviewUpdate;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

mydb = new DatabaseHelper(this);

editName = (EditText) findViewById(R.id.editText\_Name);

editSurname = (EditText) findViewById(R.id.editText\_Surname);

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

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

btnAddData = (Button) findViewById(R.id.button\_Add);

btnviewAll = (Button) findViewById(R.id.button\_viewAll);

btnviewUpdate = (Button) findViewById(R.id.button\_update);

btnviewDelete = (Button) findViewById(R.id.button\_delete);

btnAddData.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v)

{

AddData();

}

});

}

public void AddData()

{

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

String surname = editSurname.getText().toString();

String marks = editMarks.getText().toString();

// Check if marks are valid

if (!marks.isEmpty()) {

int marksValue = Integer.parseInt(marks);

if (marksValue > 100) {

Toast.makeText(MainActivity.this, "Marks cannot be more than 100", Toast.LENGTH\_LONG).show();

return; // Exit the method early

}

}

//al it makes this as boolean

boolean isInserted = mydb.insertData(name, surname, marks); //to add the data entered by user

if (isInserted) //check if inserted

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

else

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

}

}

**DatabaseHelper class:**

package com.example.sqlite2;

import android.content.ContentValues;

import android.content.Context;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import android.database.Cursor;

import androidx.annotation.Nullable;

public class DatabaseHelper extends SQLiteOpenHelper {

public static final String DATABASE\_NAME = "student1.db";

public static final String TABLE\_NAME = "student1\_table";

public static final String COL\_1 = "ID";

public static final String COL\_2 = "NAME";

public static final String COL\_3 = "SURNAME";

public static final String COL\_4 = "MARKS";

public DatabaseHelper(Context context) //database created

{

super(context, DATABASE\_NAME, null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) //to create a table

{

String createTableQuery = "CREATE TABLE " + TABLE\_NAME + " (" +

COL\_1 + " INTEGER PRIMARY KEY AUTOINCREMENT, " +

COL\_2 + " TEXT, " +

COL\_3 + " TEXT, " +

COL\_4 + " INTEGER)";

// Execute the SQL statement to create the table

db.execSQL(createTableQuery);

}

@Override

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

db.execSQL("drop table if exists " + TABLE\_NAME);

onCreate(db);

}

public boolean insertData(String name, String surname, String marks) {

SQLiteDatabase db = this.getWritableDatabase(); //\*\*

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_2, name); //colName,value to be passed

contentValues.put(COL\_3, surname); // Use the correct parameter name

contentValues.put(COL\_4, marks);

long result = db.insert(TABLE\_NAME, null, contentValues); //insert the data

if (result == -1) //if data is not inserted then it will return -1

return false;

else

return true;

}

}

XML file:

<?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">

<!-- TextViews -->

<TextView

android:id="@+id/textViewName"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="40dp"

android:layout\_marginTop="56dp"

android:text="NAME"

android:textStyle="bold"

app:layout\_constraintStart\_toStartOf="parent"

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

<TextView

android:id="@+id/textViewSurname"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:layout\_marginTop="32dp"

android:text="SURNAME"

android:textStyle="bold"

app:layout\_constraintStart\_toStartOf="parent"

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

<TextView

android:id="@+id/textViewMarks"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:layout\_marginTop="52dp"

android:text="MARKS"

android:textStyle="bold"

app:layout\_constraintStart\_toStartOf="parent"

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

<TextView

android:id="@+id/textViewID"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:layout\_marginTop="52dp"

android:text="ID"

android:textStyle="bold"

app:layout\_constraintStart\_toStartOf="parent"

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

<!-- EditTexts -->

<EditText

android:id="@+id/editText\_Name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="60dp"

android:layout\_marginTop="4dp"

android:ems="10"

android:hint="Enter name"

android:inputType="text"

app:layout\_constraintStart\_toEndOf="@id/textViewName"

app:layout\_constraintTop\_toTopOf="@id/textViewName" />

<EditText

android:id="@+id/editText\_Surname"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="40dp"

android:layout\_marginTop="8dp"

android:ems="10"

android:hint="Enter surname"

android:inputType="text"

app:layout\_constraintStart\_toEndOf="@id/textViewSurname"

app:layout\_constraintTop\_toTopOf="@id/textViewSurname" />

<EditText

android:id="@+id/editText\_Marks"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="56dp"

android:layout\_marginTop="4dp"

android:ems="10"

android:hint="Enter Marks"

android:inputType="text"

app:layout\_constraintStart\_toEndOf="@id/textViewMarks"

app:layout\_constraintTop\_toTopOf="@id/textViewMarks" />

<!-- Buttons -->

<EditText

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

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="60dp"

android:ems="10"

android:hint="Enter ID"

android:inputType="text"

app:layout\_constraintStart\_toEndOf="@id/textViewID"

app:layout\_constraintTop\_toTopOf="@id/textViewID" />

<Button

android:id="@+id/button\_Add"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="136dp"

android:text="AddData"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.503"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/editText\_Marks" />

<Button

android:id="@+id/button\_viewAll"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="56dp"

android:text="View all "

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_Add" />

<Button

android:id="@+id/button\_update"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="56dp"

android:text="update"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_viewAll" />

<Button

android:id="@+id/button\_delete"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Delete"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_update"

android:layout\_marginTop="56dp"

android:layout\_marginStart="16dp"

android:layout\_marginEnd="16dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

To add/update/delete/view:

MainActivity:

package com.example.sqllite1;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.content.Intent;

import android.widget.Toast;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

DatabaseHelper mydb; //public DatabaseHelper(Context context) in databasehelper class

EditText editName, editSurname, editMarks,editTextId;

Button btnAddData;

Button btnviewAll;

Button btnviewDelete;

Button btnviewUpdate;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

mydb = new DatabaseHelper(this); //this will call the constructor

editName = (EditText) findViewById(R.id.editText\_Name);

editSurname = (EditText) findViewById(R.id.editText\_Surname);

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

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

btnAddData = (Button) findViewById(R.id.button\_Add);

btnviewAll = (Button) findViewById(R.id.button\_viewAll);

btnviewUpdate = (Button) findViewById(R.id.button\_update);

btnviewDelete = (Button) findViewById(R.id.button\_delete); // Initialize btnviewDelete

btnAddData.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v)

{

AddData();

}

});

btnviewAll.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v)

{

viewAll();

}

});

UpdateData();

DeleteData();

}

public void AddData()

{

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

String surname = editSurname.getText().toString();

String marks = editMarks.getText().toString();

//Check if marks are valid

if (!marks.isEmpty()) {

int marksValue = Integer.parseInt(marks);

if (marksValue > 100) {

Toast.makeText(MainActivity.this, "Marks cannot be more than 100", Toast.LENGTH\_LONG).show();

return; // Exit the method early

}

}

//al it makes this as boolean

boolean isInserted = mydb.insertData(name, surname, marks); //to add the data entered by user

if (isInserted) //check if inserted

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

else

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

}

public void viewAll() {

Cursor res = mydb.getAllData();

if (res.getCount() == 0) {

showMessage("Error", "Nothing found");

return;

}

ArrayList<String> filteredDataList = new ArrayList<>(); // ArrayList to store filtered data

while (res.moveToNext()) {

int marks = Integer.parseInt(res.getString(3)); // Parse marks to integer

// Check if marks are less than 50

//if (marks < 50) {

String data = "ID : " + res.getString(0) + "\n" +

"Name : " + res.getString(1) + "\n" +

"Surname : " + res.getString(2) + "\n" +

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

filteredDataList.add(data); // Add filtered data to the list

// }

}

// Pass filtered data to DisplayDataActivity using Intent

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

intent.putStringArrayListExtra("filteredData", filteredDataList);

startActivity(intent);

}

public void DeleteData() {

btnviewDelete.setOnClickListener(

new View.OnClickListener() {

@Override

public void onClick(View v) {

Integer deleteRows = mydb.deleteData(editTextId.getText().toString());

if(deleteRows > 0)

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

else

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

}

} // Added closing parenthesis here

);

}

public void UpdateData() {

btnviewUpdate.setOnClickListener(

new View.OnClickListener() {

@Override

public void onClick(View v) {

boolean isUpdated=mydb.updateData(editTextId.getText().toString(),editName.getText().toString(),

editSurname.getText().toString(), editMarks.getText().toString());

if (isUpdated==true)

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

else

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

}

}

);

}

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();

}

}  
  
DatabaseHelper:

package com.example.sqllite1;

import android.content.ContentValues;

import android.content.Context;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import android.database.Cursor;

import androidx.annotation.Nullable;

public class DatabaseHelper extends SQLiteOpenHelper{

public static final String DATABASE\_NAME ="student.db";

public static final String TABLE\_NAME ="student\_table";

public static final String COL\_1 ="ID";

public static final String COL\_2 ="NAME";

public static final String COL\_3 ="SURNAME";

public static final String COL\_4 ="MARKS";

public DatabaseHelper(Context context) //database created

{

//\*\*

super(context, DATABASE\_NAME, null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) //to create a table

{

String createTableQuery = "CREATE TABLE " + TABLE\_NAME + " (" +

COL\_1 + " INTEGER PRIMARY KEY AUTOINCREMENT, " +

COL\_2 + " TEXT, " +

COL\_3 + " TEXT, " +

COL\_4 + " INTEGER)";

// Execute the SQL statement to create the table

db.execSQL(createTableQuery);

}

@Override

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

{

db.execSQL("drop table if exists "+TABLE\_NAME);

onCreate(db);

}

//new method to insert data

public boolean insertData(String name, String surname, String marks)

{

SQLiteDatabase db = this.getWritableDatabase(); //\*\*

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_2, name); //colName,value to be passed

contentValues.put(COL\_3, surname); // Use the correct parameter name

contentValues.put(COL\_4, marks);

long result = db.insert(TABLE\_NAME, null, contentValues); //insert the data

if (result == -1) //if data is not inserted then it will return -1

return false;

else

return true;

}

//method to view all data

public Cursor getAllData() {

SQLiteDatabase db = this.getWritableDatabase();

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

return res;

}

public boolean updateData(String id,String name,String surname,String marks) {

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_1, id);

contentValues.put(COL\_2, name);

contentValues.put(COL\_3, surname); // Use the correct parameter name

contentValues.put(COL\_4, marks);

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

return true;

}

public Integer deleteData (String id)

{

SQLiteDatabase db = this.getWritableDatabase();

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

}

}  
  
  
DisplayDataActivity:

package com.example.sqllite1;

import android.content.ContentValues;

import android.content.Context;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import android.database.Cursor;

import androidx.annotation.Nullable;

public class DatabaseHelper extends SQLiteOpenHelper{

public static final String DATABASE\_NAME ="student.db";

public static final String TABLE\_NAME ="student\_table";

public static final String COL\_1 ="ID";

public static final String COL\_2 ="NAME";

public static final String COL\_3 ="SURNAME";

public static final String COL\_4 ="MARKS";

public DatabaseHelper(Context context) //database created

{

//\*\*

super(context, DATABASE\_NAME, null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) //to create a table

{

String createTableQuery = "CREATE TABLE " + TABLE\_NAME + " (" +

COL\_1 + " INTEGER PRIMARY KEY AUTOINCREMENT, " +

COL\_2 + " TEXT, " +

COL\_3 + " TEXT, " +

COL\_4 + " INTEGER)";

// Execute the SQL statement to create the table

db.execSQL(createTableQuery);

}

@Override

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

{

db.execSQL("drop table if exists "+TABLE\_NAME);

onCreate(db);

}

//new method to insert data

public boolean insertData(String name, String surname, String marks)

{

SQLiteDatabase db = this.getWritableDatabase(); //\*\*

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_2, name); //colName,value to be passed

contentValues.put(COL\_3, surname); // Use the correct parameter name

contentValues.put(COL\_4, marks);

long result = db.insert(TABLE\_NAME, null, contentValues); //insert the data

if (result == -1) //if data is not inserted then it will return -1

return false;

else

return true;

}

//method to view all data

public Cursor getAllData() {

SQLiteDatabase db = this.getWritableDatabase();

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

return res;

}

public boolean updateData(String id,String name,String surname,String marks) {

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_1, id);

contentValues.put(COL\_2, name);

contentValues.put(COL\_3, surname); // Use the correct parameter name

contentValues.put(COL\_4, marks);

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

return true;

}

public Integer deleteData (String id)

{

SQLiteDatabase db = this.getWritableDatabase();

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

}

}  
  
  
activity\_display\_data.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:padding="16dp"

tools:context=".DisplayDataActivity">

<TextView

android:id="@+id/textViewFilteredData"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="18sp"

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

android:scrollbars="vertical" />

</RelativeLayout>  
  
activity\_main.xml:

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

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

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<!-- TextViews -->

<TextView

android:id="@+id/textViewName"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="40dp"

android:layout\_marginTop="56dp"

android:text="NAME"

android:textStyle="bold"

app:layout\_constraintStart\_toStartOf="parent"

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

<TextView

android:id="@+id/textViewSurname"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:layout\_marginTop="32dp"

android:text="SURNAME"

android:textStyle="bold"

app:layout\_constraintStart\_toStartOf="parent"

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

<TextView

android:id="@+id/textViewMarks"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:layout\_marginTop="52dp"

android:text="MARKS"

android:textStyle="bold"

app:layout\_constraintStart\_toStartOf="parent"

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

<TextView

android:id="@+id/textViewID"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:layout\_marginTop="52dp"

android:text="ID"

android:textStyle="bold"

app:layout\_constraintStart\_toStartOf="parent"

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

<!-- EditTexts -->

<EditText

android:id="@+id/editText\_Name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="60dp"

android:layout\_marginTop="4dp"

android:ems="10"

android:hint="Enter name"

android:inputType="text"

app:layout\_constraintStart\_toEndOf="@id/textViewName"

app:layout\_constraintTop\_toTopOf="@id/textViewName" />

<EditText

android:id="@+id/editText\_Surname"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="40dp"

android:layout\_marginTop="8dp"

android:ems="10"

android:hint="Enter surname"

android:inputType="text"

app:layout\_constraintStart\_toEndOf="@id/textViewSurname"

app:layout\_constraintTop\_toTopOf="@id/textViewSurname" />

<EditText

android:id="@+id/editText\_Marks"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="56dp"

android:layout\_marginTop="4dp"

android:ems="10"

android:hint="Enter Marks"

android:inputType="text"

app:layout\_constraintStart\_toEndOf="@id/textViewMarks"

app:layout\_constraintTop\_toTopOf="@id/textViewMarks" />

<EditText

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

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:hint="Enter ID"

android:inputType="text"

app:layout\_constraintStart\_toEndOf="@id/textViewID"

app:layout\_constraintTop\_toTopOf="@id/textViewID" />

<!-- Buttons -->

<Button

android:id="@+id/button\_Add"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="136dp"

android:text="AddData"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.503"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/editText\_Marks" />

<Button

android:id="@+id/button\_viewAll"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="56dp"

android:text="View all "

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_Add" />

<Button

android:id="@+id/button\_update"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="56dp"

android:text="update"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_viewAll" />

<Button

android:id="@+id/button\_delete"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Delete"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@id/button\_update"

android:layout\_marginTop="56dp"

android:layout\_marginStart="16dp"

android:layout\_marginEnd="16dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

COUNT:

activity\_display\_data.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:padding="16dp"

tools:context=".DisplayDataActivity">

<TextView

android:id="@+id/textViewFilteredData"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="18sp"

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

android:scrollbars="vertical" />

<TextView

android:id="@+id/textViewCount"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/textViewFilteredData"

android:layout\_marginTop="16dp"

android:textSize="18sp"

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

android:text="Count of IDs: "

/>

</RelativeLayout>

DatabaseHelper.java

package com.example.sqllite1;

import android.content.ContentValues;

import android.content.Context;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import android.database.Cursor;

import androidx.annotation.Nullable;

public class DatabaseHelper extends SQLiteOpenHelper{

public static final String DATABASE\_NAME ="student.db";

public static final String TABLE\_NAME ="student\_table";

public static final String COL\_1 ="ID";

public static final String COL\_2 ="NAME";

public static final String COL\_3 ="SURNAME";

public static final String COL\_4 ="MARKS";

public DatabaseHelper(Context context) //database created

{

//\*\*

super(context, DATABASE\_NAME, null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) //to create a table

{

String createTableQuery = "CREATE TABLE " + TABLE\_NAME + " (" +

COL\_1 + " INTEGER PRIMARY KEY AUTOINCREMENT, " +

COL\_2 + " TEXT, " +

COL\_3 + " TEXT, " +

COL\_4 + " INTEGER)";

// Execute the SQL statement to create the table

db.execSQL(createTableQuery);

}

@Override

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

{

db.execSQL("drop table if exists "+TABLE\_NAME);

onCreate(db);

}

//new method to insert data

public boolean insertData(String name, String surname, String marks)

{

SQLiteDatabase db = this.getWritableDatabase(); //\*\*

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_2, name); //colName,value to be passed

contentValues.put(COL\_3, surname); // Use the correct parameter name

contentValues.put(COL\_4, marks);

long result = db.insert(TABLE\_NAME, null, contentValues); //insert the data

if (result == -1) //if data is not inserted then it will return -1

return false;

else

return true;

}

//method to view all data

public Cursor getAllData() {

SQLiteDatabase db = this.getWritableDatabase();

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

return res;

}

public boolean updateData(String id,String name,String surname,String marks) {

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_1, id);

contentValues.put(COL\_2, name);

contentValues.put(COL\_3, surname); // Use the correct parameter name

contentValues.put(COL\_4, marks);

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

return true;

}

public Integer deleteData (String id)

{

SQLiteDatabase db = this.getWritableDatabase();

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

}

//to get the count of the id

public int getCountOfIds() {

SQLiteDatabase db = this.getReadableDatabase();

Cursor cursor = db.rawQuery("SELECT COUNT(" + COL\_1 + ") FROM " + TABLE\_NAME, null);

//Cursor cursor = db.rawQuery("SELECT COUNT(" + COL\_1 + ") FROM " + TABLE\_NAME + " WHERE " + COL\_4 + " = 0", null);

int count = 0;

if (cursor.moveToFirst()) {

count = cursor.getInt(0);

}

cursor.close();

return count;

}

}

DisplayDataActivity:

package com.example.sqllite1;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.TextView;

import java.util.ArrayList;

public class DisplayDataActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display\_data);

// Receive filtered data from MainActivity

ArrayList<String> filteredDataList = getIntent().getStringArrayListExtra("filteredData");

// Display filtered data in TextView or ListView, etc.

TextView textView = findViewById(R.id.textViewFilteredData);

StringBuilder stringBuilder = new StringBuilder();

for (String data : filteredDataList) {

stringBuilder.append(data);

}

textView.setText(stringBuilder.toString());

// Display count of IDs

DatabaseHelper databaseHelper = new DatabaseHelper(this);

int countOfIds = databaseHelper.getCountOfIds();

TextView countTextView = findViewById(R.id.textViewCount);

countTextView.setText("Count of IDs: " + countOfIds);

}

}

To delete if fname=lname:

DatabaseHelper:

package com.example.sqllite1;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.content.Intent;

import android.widget.Toast;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

DatabaseHelper mydb; //public DatabaseHelper(Context context) in databasehelper class

EditText editName, editSurname, editMarks,editTextId;

Button btnAddData;

Button btnviewAll;

Button btnviewDelete;

Button btnviewUpdate;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

mydb = new DatabaseHelper(this); //this will call the constructor

editName = (EditText) findViewById(R.id.editText\_Name);

editSurname = (EditText) findViewById(R.id.editText\_Surname);

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

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

btnAddData = (Button) findViewById(R.id.button\_Add);

btnviewAll = (Button) findViewById(R.id.button\_viewAll);

btnviewUpdate = (Button) findViewById(R.id.button\_update);

btnviewDelete = (Button) findViewById(R.id.button\_delete); // Initialize btnviewDelete

// Call the method to delete rows where first and last names are the same

int deletedRows = mydb.deleteRowsWhereFirstAndLastNamesAreSame();

if (deletedRows > 0) {

// Rows were deleted, show a toast or perform any other action as needed

Toast.makeText(this, "Deleted " + deletedRows + " rows where first and last names are the same", Toast.LENGTH\_SHORT).show();

} else {

// No rows were deleted, show a message indicating that

Toast.makeText(this, "No rows were deleted", Toast.LENGTH\_SHORT).show();

}

btnAddData.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v)

{

AddData();

}

});

btnviewAll.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v)

{

viewAll();

}

});

UpdateData();

DeleteData();

}

public void AddData()

{

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

String surname = editSurname.getText().toString();

String marks = editMarks.getText().toString();

//Check if marks are valid

if (!marks.isEmpty()) {

int marksValue = Integer.parseInt(marks);

if (marksValue > 100) {

Toast.makeText(MainActivity.this, "Marks cannot be more than 100", Toast.LENGTH\_LONG).show();

return; // Exit the method early

}

}

//al it makes this as boolean

boolean isInserted = mydb.insertData(name, surname, marks); //to add the data entered by user

if (isInserted) //check if inserted

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

else

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

}

public void viewAll() {

Cursor res = mydb.getAllData();

if (res.getCount() == 0) {

showMessage("Error", "Nothing found");

return;

}

ArrayList<String> filteredDataList = new ArrayList<>(); // ArrayList to store filtered data

while (res.moveToNext()) {

int marks = Integer.parseInt(res.getString(3)); // Parse marks to integer

// Check if marks are less than 50

//if (marks < 50) {

String data = "ID : " + res.getString(0) + "\n" +

"Name : " + res.getString(1) + "\n" +

"Surname : " + res.getString(2) + "\n" +

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

filteredDataList.add(data); // Add filtered data to the list

// }

}

// Pass filtered data to DisplayDataActivity using Intent

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

intent.putStringArrayListExtra("filteredData", filteredDataList);

startActivity(intent);

}

public void DeleteData() {

btnviewDelete.setOnClickListener(

new View.OnClickListener() {

@Override

public void onClick(View v) {

Integer deleteRows = mydb.deleteData(editTextId.getText().toString());

if(deleteRows > 0)

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

else

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

}

} // Added closing parenthesis here

);

}

public void UpdateData() {

btnviewUpdate.setOnClickListener(

new View.OnClickListener() {

@Override

public void onClick(View v) {

boolean isUpdated=mydb.updateData(editTextId.getText().toString(),editName.getText().toString(),

editSurname.getText().toString(), editMarks.getText().toString());

if (isUpdated==true)

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

else

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

}

}

);

}

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();

}

}

DisplayDataActivity:

package com.example.sqllite1;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.TextView;

import java.util.ArrayList;

public class DisplayDataActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display\_data);

// Receive filtered data from MainActivity

ArrayList<String> filteredDataList = getIntent().getStringArrayListExtra("filteredData");

// Display filtered data in TextView or ListView, etc.

TextView textView = findViewById(R.id.textViewFilteredData);

StringBuilder stringBuilder = new StringBuilder();

for (String data : filteredDataList) {

stringBuilder.append(data);

}

textView.setText(stringBuilder.toString());

// Display count of IDs

DatabaseHelper databaseHelper = new DatabaseHelper(this);

int countOfIds = databaseHelper.getCountOfIds();

TextView countTextView = findViewById(R.id.textViewCount);

countTextView.setText("Count of IDs: " + countOfIds);

}

}

MainActivity:

package com.example.sqllite1;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.content.Intent;

import android.widget.Toast;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

DatabaseHelper mydb; //public DatabaseHelper(Context context) in databasehelper class

EditText editName, editSurname, editMarks,editTextId;

Button btnAddData;

Button btnviewAll;

Button btnviewDelete;

Button btnviewUpdate;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

mydb = new DatabaseHelper(this); //this will call the constructor

editName = (EditText) findViewById(R.id.editText\_Name);

editSurname = (EditText) findViewById(R.id.editText\_Surname);

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

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

btnAddData = (Button) findViewById(R.id.button\_Add);

btnviewAll = (Button) findViewById(R.id.button\_viewAll);

btnviewUpdate = (Button) findViewById(R.id.button\_update);

btnviewDelete = (Button) findViewById(R.id.button\_delete); // Initialize btnviewDelete

// Call the method to delete rows where first and last names are the same

int deletedRows = mydb.deleteRowsWhereFirstAndLastNamesAreSame();

if (deletedRows > 0) {

// Rows were deleted, show a toast or perform any other action as needed

Toast.makeText(this, "Deleted " + deletedRows + " rows where first and last names are the same", Toast.LENGTH\_SHORT).show();

} else {

// No rows were deleted, show a message indicating that

Toast.makeText(this, "No rows were deleted", Toast.LENGTH\_SHORT).show();

}

btnAddData.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v)

{

AddData();

}

});

btnviewAll.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v)

{

viewAll();

}

});

UpdateData();

DeleteData();

}

public void AddData()

{

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

String surname = editSurname.getText().toString();

String marks = editMarks.getText().toString();

//Check if marks are valid

if (!marks.isEmpty()) {

int marksValue = Integer.parseInt(marks);

if (marksValue > 100) {

Toast.makeText(MainActivity.this, "Marks cannot be more than 100", Toast.LENGTH\_LONG).show();

return; // Exit the method early

}

}

//al it makes this as boolean

boolean isInserted = mydb.insertData(name, surname, marks); //to add the data entered by user

if (isInserted) //check if inserted

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

else

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

}

public void viewAll() {

Cursor res = mydb.getAllData();

if (res.getCount() == 0) {

showMessage("Error", "Nothing found");

return;

}

ArrayList<String> filteredDataList = new ArrayList<>(); // ArrayList to store filtered data

while (res.moveToNext()) {

int marks = Integer.parseInt(res.getString(3)); // Parse marks to integer

// Check if marks are less than 50

//if (marks < 50) {

String data = "ID : " + res.getString(0) + "\n" +

"Name : " + res.getString(1) + "\n" +

"Surname : " + res.getString(2) + "\n" +

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

filteredDataList.add(data); // Add filtered data to the list

// }

}

// Pass filtered data to DisplayDataActivity using Intent

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

intent.putStringArrayListExtra("filteredData", filteredDataList);

startActivity(intent);

}

public void DeleteData() {

btnviewDelete.setOnClickListener(

new View.OnClickListener() {

@Override

public void onClick(View v) {

Integer deleteRows = mydb.deleteData(editTextId.getText().toString());

if(deleteRows > 0)

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

else

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

}

} // Added closing parenthesis here

);

}

public void UpdateData() {

btnviewUpdate.setOnClickListener(

new View.OnClickListener() {

@Override

public void onClick(View v) {

boolean isUpdated=mydb.updateData(editTextId.getText().toString(),editName.getText().toString(),

editSurname.getText().toString(), editMarks.getText().toString());

if (isUpdated==true)

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

else

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

}

}

);

}

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();

}}

>>X………>>>X……..>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Res->new->android res direc->raw->raw :Media Player

<activity android:name="com.example.temp.intent2"/>

>>X………>>>X……..>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

COUNTRY CODE:

DatabaseHelper:

package com.example.db\_c2;

// DatabaseHelper.java

import android.content.ContentValues;

import android.content.Context;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

public class DatabaseHelper extends SQLiteOpenHelper {

private static final String DATABASE\_NAME = "UserInfo.db";

private static final String TABLE\_NAME = "user\_info";

private static final String COL\_ID = "id";

private static final String COL\_NAME = "name";

private static final String COL\_CONTACT\_NO = "contact\_no";

private static final String COL\_COUNTRY = "country";

public DatabaseHelper(Context context) {

super(context, DATABASE\_NAME, null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) {

db.execSQL("create table " + TABLE\_NAME + " ("

+ COL\_ID + " integer primary key autoincrement,"

+ COL\_NAME + " text,"

+ COL\_CONTACT\_NO + " text,"

+ COL\_COUNTRY + " text)");

}

@Override

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

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

onCreate(db);

}

public boolean insertData(String name, String contactNo, String country) {

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_NAME, name);

contentValues.put(COL\_CONTACT\_NO, contactNo);

contentValues.put(COL\_COUNTRY, country);

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

return result != -1;

}

public Cursor getDataByCountry(String country) {

SQLiteDatabase db = this.getWritableDatabase();

return db.rawQuery("select \* from " + TABLE\_NAME + " where " + COL\_COUNTRY + "=?", new String[]{country});

}

}

DisplayActivity:

package com.example.db\_c2;

// DisplayActivity.java

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.TextView;

public class DisplayActivity extends AppCompatActivity {

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display\_details);

// Retrieve the data from the Intent

String details = getIntent().getStringExtra("details");

// Find the TextViews in the layout

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

// Set the retrieved data to the TextViews

textViewDetails.setText(details);

}

}

DisplayDetailsActivity:

package com.example.db\_c2;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayDetailsActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display\_details);

// Retrieve the data from the Intent

String details = getIntent().getStringExtra("details");

// Find the TextViews in the layout

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

// Set the retrieved data to the TextViews

textViewDetails.setText(details);

}

}

MainActivity:

package com.example.db\_c2;

// MainActivity.java

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import android.app.AlertDialog;

public class MainActivity extends AppCompatActivity {

EditText editName, editContactNo, editCountry;

Button btnSave, btnDisplay;

DatabaseHelper myDb;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editName = findViewById(R.id.editName);

editContactNo = findViewById(R.id.editContactNo);

editCountry = findViewById(R.id.editCountry);

btnSave = findViewById(R.id.btnSave);

btnDisplay = findViewById(R.id.btnDisplay);

myDb = new DatabaseHelper(this);

btnSave.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

saveData();

}

});

btnDisplay.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

displayData();

}

});

}

public void saveData() {

String name = editName.getText().toString().trim();

String contactNo = editContactNo.getText().toString().trim();

String country = editCountry.getText().toString().trim();

if (name.isEmpty() || contactNo.isEmpty() || country.isEmpty()) {

Toast.makeText(MainActivity.this, "Please fill in all fields", Toast.LENGTH\_SHORT).show();

return;

}

boolean isInserted = myDb.insertData(name, contactNo, country);

if (isInserted) {

Toast.makeText(MainActivity.this, "Data saved successfully", Toast.LENGTH\_SHORT).show();

editName.setText("");

editContactNo.setText("");

editCountry.setText("");

} else {

Toast.makeText(MainActivity.this, "Failed to save data", Toast.LENGTH\_SHORT).show();

}

}

public void displayData() {

String country = editCountry.getText().toString().trim();

Cursor res = myDb.getDataByCountry(editCountry.getText().toString().trim());

if (res.getCount() == 0) {

showMessage("Error", "No data found for this country");

return;

}

StringBuffer buffer = new StringBuffer();

while (res.moveToNext()) {

buffer.append("ID: ").append(res.getString(0)).append("\n");

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

buffer.append("Contact No: ").append(res.getString(2)).append("\n");

buffer.append("Country: ").append(res.getString(3)).append("\n\n");

}

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

intent.putExtra("details", buffer.toString()); // Pass all details as a single string

startActivity(intent);

}

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();

}

}

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>.

activity\_disply.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">

<TextView

android:id="@+id/textView"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="16sp"

android:padding="16dp"/>

</LinearLayout>

activity\_display\_details.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">

<TextView

android:id="@+id/textViewCountry"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="18sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textViewDetails"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="16sp"

android:padding="16dp"/>

</LinearLayout>

activity\_main.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"

tools:context=".MainActivity">

<EditText

android:id="@+id/editName"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Name"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

<EditText

android:id="@+id/editContactNo"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Contact No"

android:layout\_below="@id/editName"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

<EditText

android:id="@+id/editCountry"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Country"

android:layout\_below="@id/editContactNo"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

<Button

android:id="@+id/btnSave"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Save"

android:layout\_below="@id/editCountry"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

<Button

android:id="@+id/btnDisplay"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Display"

android:layout\_below="@id/btnSave"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

</RelativeLayout>

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">

<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.Db\_c2"

tools:targetApi="31">

<activity

android:name=".DisplayDetailsActivity"

android:label="Display Details">

</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>

MainActivity:

package com.example.db\_c2;

// MainActivity.java

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import android.app.AlertDialog;

import java.util.regex.Pattern;

import java.util.regex.Matcher;

public class MainActivity extends AppCompatActivity {

EditText editName, editContactNo, editCountry;

Button btnSave, btnDisplay;

DatabaseHelper myDb;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editName = findViewById(R.id.editName);

editContactNo = findViewById(R.id.editContactNo);

editCountry = findViewById(R.id.editCountry);

btnSave = findViewById(R.id.btnSave);

btnDisplay = findViewById(R.id.btnDisplay);

myDb = new DatabaseHelper(this);

btnSave.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

saveData();

}

});

btnDisplay.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

displayData();

}

});

}

public boolean isValidName(String name) {

// Regular expression for a name containing only alphabets

String NAME\_REGEX = "^[a-zA-Z]+$";

// Compile the regex pattern

Pattern pattern = Pattern.compile(NAME\_REGEX);

// Match the input name against the pattern

Matcher matcher = pattern.matcher(name);

// Return true if the name matches the pattern, otherwise false

return matcher.matches();

}

public boolean isValidPhoneNumber(String phoneNumber) {

// Regular expression for a 10-digit phone number

String PHONE\_NUMBER\_REGEX = "^\\d{10}$";

// Compile the regex pattern

Pattern pattern = Pattern.compile(PHONE\_NUMBER\_REGEX);

// Match the input phone number against the pattern

Matcher matcher = pattern.matcher(phoneNumber);

// Return true if the phone number matches the pattern, otherwise false

return matcher.matches();

}

public void saveData() {

String name = editName.getText().toString().trim();

String contactNo = editContactNo.getText().toString().trim();

String country = editCountry.getText().toString().trim();

if (name.isEmpty() || contactNo.isEmpty() || country.isEmpty()) {

Toast.makeText(MainActivity.this, "Please fill in all fields", Toast.LENGTH\_SHORT).show();

return;

}

if (!isValidName(name)) {

Toast.makeText(MainActivity.this, "Invalid name. Name should contain only alphabets.", Toast.LENGTH\_SHORT).show();

return;

}

if (!isValidPhoneNumber(contactNo)) {

Toast.makeText(MainActivity.this, "Invalid phone number. Phone number should be 10 digits.", Toast.LENGTH\_SHORT).show();

return;

}

boolean isInserted = myDb.insertData(name, contactNo, country);

if (isInserted) {

Toast.makeText(MainActivity.this, "Data saved successfully", Toast.LENGTH\_SHORT).show();

editName.setText("");

editContactNo.setText("");

editCountry.setText("");

} else {

Toast.makeText(MainActivity.this, "Failed to save data", Toast.LENGTH\_SHORT).show();

}

}

public void displayData() {

String country = editCountry.getText().toString().trim();

Cursor res = myDb.getDataByCountry(editCountry.getText().toString().trim());

if (res.getCount() == 0) {

showMessage("Error", "No data found for this country");

return;

}

StringBuffer buffer = new StringBuffer();

while (res.moveToNext()) {

buffer.append("ID: ").append(res.getString(0)).append("\n");

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

buffer.append("Contact No: ").append(res.getString(2)).append("\n");

buffer.append("Country: ").append(res.getString(3)).append("\n\n");

}

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

intent.putExtra("details", buffer.toString()); // Pass all details as a single string

startActivity(intent);

}

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();

}

}

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

C2idcountry:

Androidmanifest:

<?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.Db\_c2"

tools:targetApi="31">

<activity

android:name=".DisplayDetailsActivity"

android:label="Display Details">

</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>

DatabaseHelper:

package com.example.db\_c2;

// DatabaseHelper.java

import android.content.ContentValues;

import android.content.Context;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

public class DatabaseHelper extends SQLiteOpenHelper {

private static final String DATABASE\_NAME = "UserInfo.db";

private static final String TABLE\_NAME = "user\_info";

private static final String COL\_ID = "id";

private static final String COL\_NAME = "name";

private static final String COL\_CONTACT\_NO = "contact\_no";

private static final String COL\_COUNTRY = "country";

public DatabaseHelper(Context context) {

super(context, DATABASE\_NAME, null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) {

db.execSQL("create table " + TABLE\_NAME + " ("

+ COL\_ID + " integer primary key ,"

+ COL\_NAME + " text,"

+ COL\_CONTACT\_NO + " text,"

+ COL\_COUNTRY + " text)");

}

@Override

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

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

onCreate(db);

}

public boolean insertData(String id, String name, String contactNo, String country) {

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_ID, id); // Insert the provided ID

contentValues.put(COL\_NAME, name);

contentValues.put(COL\_CONTACT\_NO, contactNo);

contentValues.put(COL\_COUNTRY, country);

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

return result != -1;

}

public Cursor getDataByCountry(String country) {

SQLiteDatabase db = this.getWritableDatabase();

return db.rawQuery("select \* from " + TABLE\_NAME + " where " + COL\_COUNTRY + "=?", new String[]{country});

}

}

DisplayActivity:

package com.example.db\_c2;

// DisplayActivity.java

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.TextView;

public class DisplayActivity extends AppCompatActivity {

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display\_details);

// Retrieve the data from the Intent

String details = getIntent().getStringExtra("details");

// Find the TextViews in the layout

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

// Set the retrieved data to the TextViews

textViewDetails.setText(details);

}

}

DisplayDetailsActivity:

package com.example.db\_c2;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class DisplayDetailsActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_display\_details);

// Retrieve the data from the Intent

String details = getIntent().getStringExtra("details");

// Find the TextView in the layout

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

// Set the retrieved data to the TextView

textViewDetails.setText(details);

}

}

MainActivity:

// MainActivity.java

package com.example.db\_c2;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import android.app.AlertDialog;

import java.util.regex.Pattern;

import java.util.regex.Matcher;

public class MainActivity extends AppCompatActivity {

EditText editID, editName, editContactNo, editCountry;

Button btnSave, btnDisplay;

DatabaseHelper myDb;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editID = findViewById(R.id.editID);

editName = findViewById(R.id.editName);

editContactNo = findViewById(R.id.editContactNo);

editCountry = findViewById(R.id.editCountry);

btnSave = findViewById(R.id.btnSave);

btnDisplay = findViewById(R.id.btnDisplay);

myDb = new DatabaseHelper(this);

btnSave.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

saveData();

}

});

btnDisplay.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

displayData();

}

});

}

public void saveData() {

String id = editID.getText().toString().trim();

String name = editName.getText().toString().trim();

String contactNo = editContactNo.getText().toString().trim();

String country = editCountry.getText().toString().trim();

if (!isValidName(name)) {

Toast.makeText(MainActivity.this, "Invalid name. Name should contain only alphabets.", Toast.LENGTH\_SHORT).show();

return;

}

if (!isValidPhoneNumber(contactNo)) {

Toast.makeText(MainActivity.this, "Invalid phone number. Phone number should be 10 digits.", Toast.LENGTH\_SHORT).show();

return;

}

if (name.isEmpty() || contactNo.isEmpty() || country.isEmpty()) {

Toast.makeText(MainActivity.this, "Please fill in all fields", Toast.LENGTH\_SHORT).show();

return;

}

boolean isInserted = myDb.insertData(id, name, contactNo, country);

if (isInserted) {

Toast.makeText(MainActivity.this, "Data saved successfully", Toast.LENGTH\_SHORT).show();

editID.setText("");

editName.setText("");

editContactNo.setText("");

editCountry.setText("");

} else {

Toast.makeText(MainActivity.this, "Failed to save data", Toast.LENGTH\_SHORT).show();

}

}

public boolean isValidName(String name) {

String NAME\_REGEX = "^[a-zA-Z]+$";

Pattern pattern = Pattern.compile(NAME\_REGEX);

Matcher matcher = pattern.matcher(name);

return matcher.matches();

}

public boolean isValidPhoneNumber(String phoneNumber) {

String PHONE\_NUMBER\_REGEX = "^\\d{10}$";

Pattern pattern = Pattern.compile(PHONE\_NUMBER\_REGEX);

Matcher matcher = pattern.matcher(phoneNumber);

return matcher.matches();

}

public void displayData() {

String country = editCountry.getText().toString().trim();

Cursor res = myDb.getDataByCountry(country);

if (res.getCount() == 0) {

showMessage("Error", "No data found for this country");

return;

}

StringBuffer buffer = new StringBuffer();

while (res.moveToNext()) {

buffer.append("ID: ").append(res.getString(0)).append("\n");

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

buffer.append("Contact No: ").append(res.getString(2)).append("\n");

buffer.append("Country: ").append(res.getString(3)).append("\n\n");

}

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

intent.putExtra("details", buffer.toString());

startActivity(intent);

}

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();

}

}

activity\_display.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">

<TextView

android:id="@+id/textView"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="16sp"

android:padding="16dp"/>

</LinearLayout>

Activity\_display\_details.xml:

<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"

tools:context=".DisplayDetailsActivity">

<ScrollView

android:layout\_width="match\_parent"

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

<LinearLayout

android:id="@+id/detailsLayout"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical"

android:padding="16dp">

<TextView

android:id="@+id/textViewDetails"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Details Placeholder"

android:layout\_margin="16dp"/>

</LinearLayout>

</ScrollView>

</RelativeLayout>

Activity\_main.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"

tools:context=".MainActivity">

<EditText

android:id="@+id/editName"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Name"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

<EditText

android:id="@+id/editID"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter ID"

android:layout\_below="@id/editName"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

<EditText

android:id="@+id/editContactNo"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Contact No"

android:layout\_below="@id/editID"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

<EditText

android:id="@+id/editCountry"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Country"

android:layout\_below="@id/editContactNo"

android:layout\_marginTop="20dp"

android:layout\_marginHorizontal="20dp"/>

<Button

android:id="@+id/btnSave"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/editCountry"

android:layout\_marginHorizontal="20dp"

android:layout\_marginTop="20dp"

android:text="Save" />

<Button

android:id="@+id/btnDisplay"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/btnSave"

android:layout\_marginHorizontal="20dp"

android:layout\_marginTop="20dp"

android:text="Display" />

</RelativeLayout>