Assignment-2

Q-1 . Develop an app which stores student information. First activity will show the list of entries added. Add button should be given on this page with the help of options menu. In the add operation user must enter student name, roll no, marks of 3 subjects. Total should be auto calculated and displayed in a textview. List on the first page should display student name, roll no and only the total of the 3 subjects. Use custom adapter and recyclerview. Perform necessary validations.

2. Consider table structure as follows :

Student (StudId, StudName, StudRno, Marks1, Marks2, Marks3, Total, Entrydatetime).

MainActivity.java

```java
package com.example.assignment_2;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity implements
View.OnClickListener
{
    TextView tvheader;
    Button btnQ1,btnQ2;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        tvheader = (TextView) findViewById(R.id.tvheader);
        btnQ1 = (Button) findViewById(R.id.btnQ1);
        btnQ2 = (Button) findViewById(R.id.btnQ2);

        btnQ1.setOnClickListener(this);
        btnQ2.setOnClickListener(this);
    }
```

```java
    @Override
    public void onClick(View v)
    {
        if (v == btnQ1)
        {
            Intent i = new Intent(this , StudentInfoAvtivity.class);
            startActivity(i);
        }
        else
        {
            Intent i = new Intent(this , ListViewActivity.class);
            startActivity(i);

        }

    }
}
```

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical"
    android:layout_margin="10dp">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/tvheader"
        android:id="@+id/tvheader"
        android:layout_margin="20dp"
        android:padding="20dp"
        android:textColor="@color/white"
        android:background="@color/purple_500"/>

    <Button
        android:id="@+id/btnQ1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/btnQ1"
        android:layout_margin="10dp"
        android:padding="10dp"/>

    <Button
        android:id="@+id/btnQ2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/btnQ2"
        android:layout_margin="10dp"
        android:padding="10dp"/>

</LinearLayout>
```
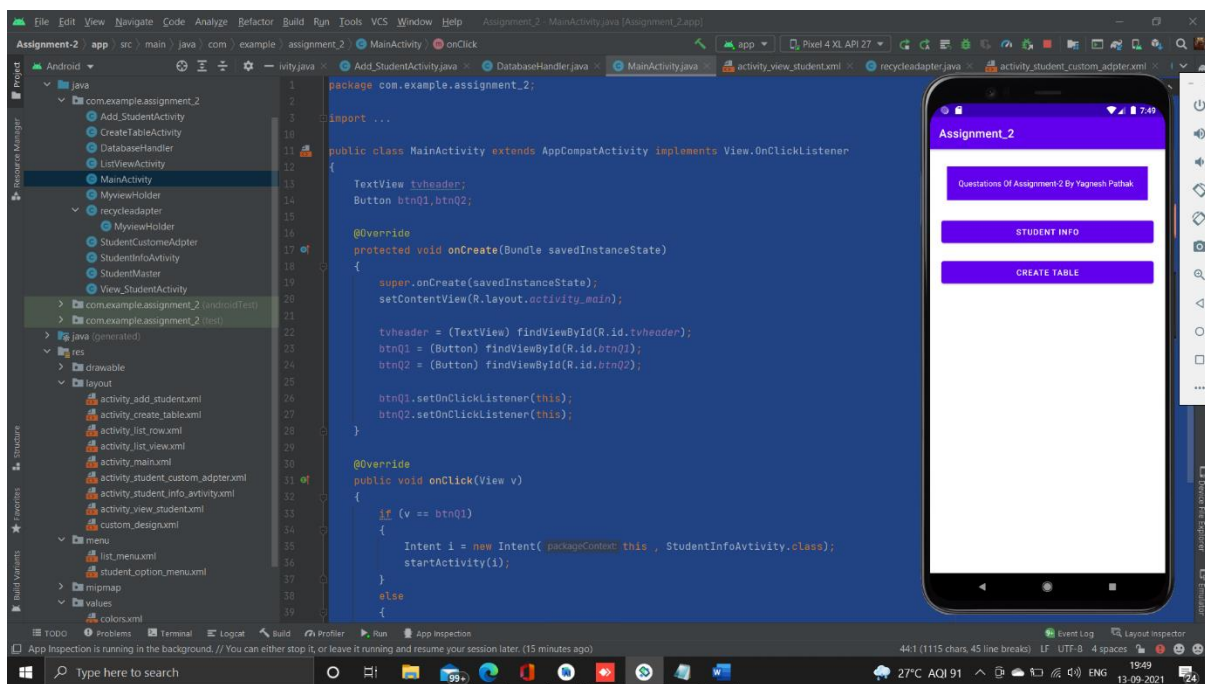
Output :

StudentInfoActivity.java

```java
package com.example.assignment_2;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.TextView;

public class StudentInfoAvtivity extends AppCompatActivity
{
    TextView tvheader;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_student_info_avtivity);

    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu)
    {
        getMenuInflater().inflate(R.menu.student_option_menu, menu);
        return true;

    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item)
    {
        switch (item.getItemId())
```

```java
        {
            case R.id.itadd:
                Intent ia = new
Intent(getApplicationContext(),Add_StudentActivity.class);
                startActivity(ia);
                return  true;


            case R.id.itview:

                Intent iv = new
Intent(getApplicationContext(),View_StudentActivity.class);
                startActivity(iv);
                return true;
            default:
                return  super.onOptionsItemSelected(item);



        }


    }
}
```

activity_student_info.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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=".StudentInfoAvtivity"
    android:orientation="vertical"
    android:layout_margin="10dp">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/tvheader"
        android:id="@+id/tvheader"
        android:layout_margin="20dp"
        android:padding="20dp"
        android:textColor="@color/white"
        android:background="@color/purple_500"/>

<!--    <Button-->
<!--        android:id="@+id/btnStdata"-->
<!--        android:layout_width="match_parent"-->
<!--        android:layout_height="wrap_content"-->
<!--        android:text="@string/btnStdata" />-->


</LinearLayout>
```
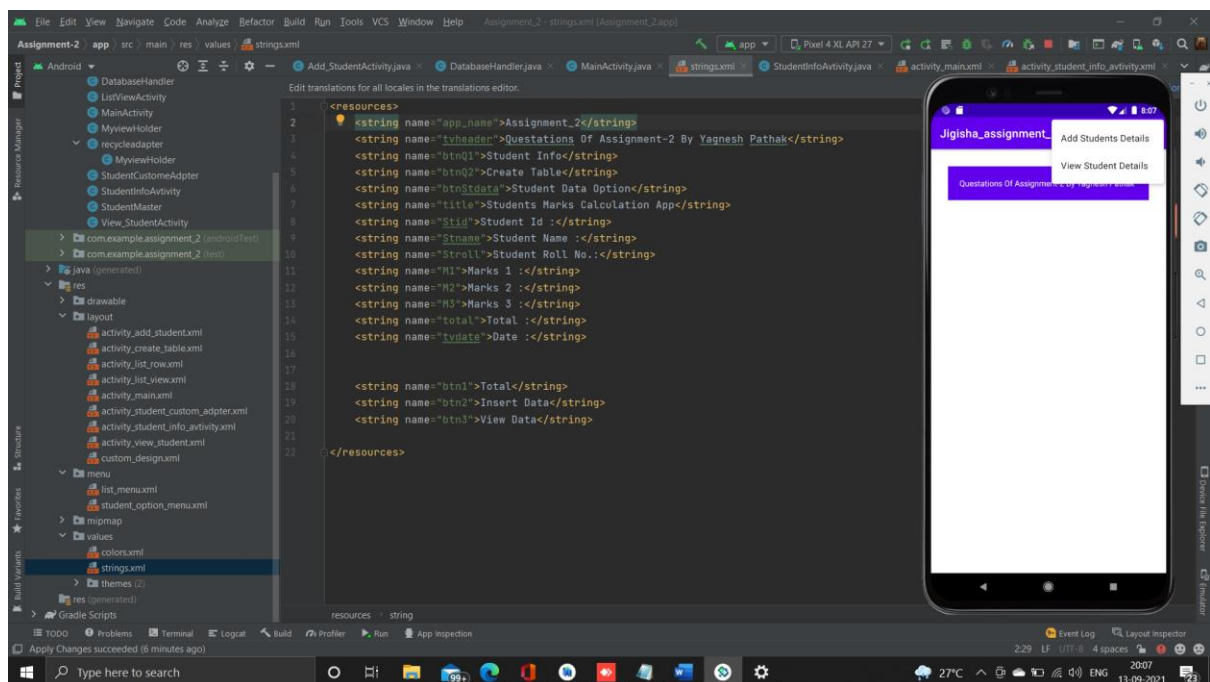
Output:

Add_StudentActivity.java

```java
package com.example.assignment_2;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.text.Editable;
import android.text.TextUtils;
import android.text.TextWatcher;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import java.text.SimpleDateFormat;
import java.util.Date;

public class Add_StudentActivity extends AppCompatActivity
{
    EditText Stuid,Stname,Stroll,M1,M2,M3;
    TextView tv1,tvheader;
    Button btn2,btn3;
//    SQLiteDatabase helper;
    DatabaseHandler DB = new DatabaseHandler(this);

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
```

```java
        setContentView(R.layout.activity_add_student);
//        Stuid = findViewById(R.id.Stuid);
        Stname =  findViewById(R.id.Stname);
        Stroll =  findViewById(R.id.Stroll);
        M1 =  findViewById(R.id.M1);
        M2 =  findViewById(R.id.M2);
        M3 =  findViewById(R.id.M3);


        tv1 = findViewById(R.id.tv1);
        tvheader = findViewById(R.id.tvheader);

        btn2= findViewById(R.id.btn2);
        btn3= findViewById(R.id.btn3);

        M1.addTextChangedListener(textWatcher);
        M2.addTextChangedListener(textWatcher);
        M3.addTextChangedListener(textWatcher);
        btn2.setTag(-1);
//


        btn2.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                SimpleDateFormat simpleDateFormat = new
SimpleDateFormat("yyyy-MM-dd HH:mm:ss");
                Date date = new Date();

                if ((int)btn2.getTag()==-1) {

                    DB.AddStudent(new
StudentMaster(Stname.getText().toString(), Stroll.getText().toString(),
M1.getText().toString(), M2.getText().toString(), M3.getText().toString(),
tv1.getText().toString(), simpleDateFormat.format(date).toString()));
//                    StudentMaster sm = new
StudentMaster(Stname.getText().toString(),Stroll.getText().toString(),M1.ge
tText().toString(),M2.getText().toString(),M3.getText().toString(),tv1.getT
ext().toString(),simpleDateFormat.format(date).toString());
//                    DB.AddStudent1((Stname.getText().toString()));
                    Toast.makeText(Add_StudentActivity.this, "Record Add",
Toast.LENGTH_SHORT).show();

                    Log.v("Insert Data", "Student Data Inserted");


                }

            }
        });
        btn3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v)
            {
                Toast.makeText(Add_StudentActivity.this, "Student Details
View", Toast.LENGTH_SHORT).show();
                Intent i = new
Intent(getApplicationContext(),View_StudentActivity.class);
```

```java
                    startActivity(i);

                }
        });


    }
    TextWatcher textWatcher = new TextWatcher()
    {
        @Override
        public void beforeTextChanged(CharSequence charSequence, int i, int
i1, int i2)
        {

        }

        @Override
        public void onTextChanged(CharSequence charSequence, int i, int i1,
int i2)
        {
            if(!TextUtils.isEmpty(M1.getText().toString().trim())
                    || !TextUtils.isEmpty(M2.getText().toString().trim())
                    || !TextUtils.isEmpty(M3.getText().toString().trim())

            ) {


                int mark1 =
TextUtils.isEmpty(M1.getText().toString().trim()) ? 0 :
Integer.parseInt(M1.getText().toString().trim());
                int mark2 =
TextUtils.isEmpty(M2.getText().toString().trim()) ? 0 :
Integer.parseInt(M2.getText().toString().trim());
                int mark3 =
TextUtils.isEmpty(M3.getText().toString().trim()) ? 0 :
Integer.parseInt(M3.getText().toString().trim());

                int answer = mark1 + mark2 + mark3;

                Log.e("RESULT", String.valueOf(answer));
                tv1.setText(String.valueOf(answer));
            }else {
                tv1.setText("");
            }
        }

        @Override
        public void afterTextChanged(Editable editable)
        {

        }
    } ;




}
```

DatabaseHandler.java

```java
package com.example.assignment_2;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import android.util.Log;

import androidx.annotation.Nullable;

import java.util.ArrayList;
import java.util.List;

public class DatabaseHandler extends SQLiteOpenHelper {
    private static final String DATABASE_NAME = "studentdetail";
    private static final int VERSION = 3;
    private static final String TABLE_NAME = "student_master";
    private static final String StudId = "Stid";
    private static final String StudName = "Stname";
    private static final String StudRno = "Stroll";
    private static final String SMarks1 = "Stm1";
    private static final String SMarks2 = "Stm2";
    private static final String SMarks3 = "Stm3";
    private static final String STotalMark = "Sttotal";
    private static final String SEDate = "datetime";


    public DatabaseHandler(Context context) {
        super(context, DATABASE_NAME, null, VERSION);

    }

    @Override
    public void onCreate(SQLiteDatabase DB) {
        String CREATE_STUDENTMASTER_TABLE = "CREATE TABLE IF NOT EXISTS " +
TABLE_NAME + "(" +
                StudId + " INTEGER PRIMARY KEY AUTOINCREMENT," +
                StudName + " TEXT ," +
                StudRno + " TEXT ," +
                SMarks1 + " TEXT ," +
                SMarks2 + " TEXT ," +
                SMarks3 + " TEXT ," +
                STotalMark + " TEXT ," +
                SEDate + " TEXT )";
        DB.execSQL(CREATE_STUDENTMASTER_TABLE);


    }

    @Override
    public void onUpgrade(SQLiteDatabase DB, int i, int i1) {
        DB.execSQL("DROP TABLE IF EXISTS " + TABLE_NAME);
        onCreate(DB);

    }

    void AddStudent(StudentMaster sm) {
```

```java
        SQLiteDatabase DB = this.getWritableDatabase();
        ContentValues cv = new ContentValues();
//        cv.put(StudId, sm.getStud_Id());
        cv.put(StudName, sm.getStud_Name());
        cv.put(StudRno, sm.getStud_Rno());
        cv.put(SMarks1, sm.getS_Marks1());
        cv.put(SMarks2, sm.getS_Marks2());
        cv.put(SMarks3, sm.getS_Marks3());
        cv.put(STotalMark, sm.getS_TotalMark());
        cv.put(SEDate, sm.getS_EDate());
        DB.insert(TABLE_NAME, null, cv);
        DB.close();

    }

    void AddStudent1(String sName) {

        SQLiteDatabase DB = this.getWritableDatabase();
        ContentValues cv = new ContentValues();
//        cv.put(StudId, sm.getStud_Id());
        cv.put(StudName, sName);
//        cv.put(StudRno, sm.getStud_Rno());
//        cv.put(SMarks1, sm.getS_Marks1());
//        cv.put(SMarks2, sm.getS_Marks2());
//        cv.put(SMarks3, sm.getS_Marks3());
//        cv.put(STotalMark, sm.getS_TotalMark());
//        cv.put(SEDate, sm.getS_EDate());
        DB.insert(TABLE_NAME, null, cv);
        DB.close();

    }
    public List<StudentMaster> getAllStudent()
    {
        List<StudentMaster> stlist = new ArrayList<StudentMaster>();
        String selectQuery = "SELECT * FROM " + TABLE_NAME;
        SQLiteDatabase DB = this.getWritableDatabase();
        Cursor cr = DB.rawQuery(selectQuery,null);

        if(cr.moveToFirst())
        {
            do {
                StudentMaster sm = new StudentMaster();
                sm.setStud_Id(Integer.parseInt(cr.getString(0)));
                sm.setStud_Name(cr.getString(1));
                sm.setStud_Rno(cr.getString(2));
                sm.setS_Marks1(cr.getString(3));
                sm.setS_Marks2(cr.getString(4));
                sm.setS_Marks3(cr.getString(5));
                sm.setS_TotalMark(cr.getString(6));
                sm.setS_EDate(cr.getString(7));

                stlist.add(sm);
            }
            while (cr.moveToNext());
        }
        return stlist;
    }

}
```

StudemtMaster.java

```java
package com.example.assignment_2;

public class StudentMaster
{
    public int Stud_Id;
    public String Stud_Name;
    public String Stud_Rno;
    public String S_Marks1;
    public String S_Marks2;
    public String S_Marks3;
    public String S_TotalMark;
    public String S_EDate;
 // empty Constructor
    public StudentMaster()
    {

    }

    public StudentMaster(int stud_Id, String stud_Name, String stud_Rno,
String s_Marks1, String s_Marks2, String s_Marks3, String s_TotalMark,
String s_EDate) {
        this.Stud_Id = stud_Id;
        this.Stud_Name = stud_Name;
        this.Stud_Rno = stud_Rno;
        this.S_Marks1 = s_Marks1;
        this.S_Marks2 = s_Marks2;
        this.S_Marks3 = s_Marks3;
        this.S_TotalMark = s_TotalMark;
        this.S_EDate = s_EDate;
    }

    public StudentMaster(String stud_Name, String stud_Rno, String
s_Marks1, String s_Marks2, String s_Marks3, String s_TotalMark, String
s_EDate) {
        this.Stud_Name = stud_Name;
        this.Stud_Rno = stud_Rno;
        this.S_Marks1 = s_Marks1;
        this.S_Marks2 = s_Marks2;
        this.S_Marks3 = s_Marks3;
        this.S_TotalMark = s_TotalMark;
        this.S_EDate = s_EDate;
    }

    public int getStud_Id() {
        return Stud_Id;
    }

    public void setStud_Id(int stud_Id) {
        Stud_Id = stud_Id;
    }

    public String getStud_Name() {
        return Stud_Name;
    }

    public void setStud_Name(String stud_Name) {
        Stud_Name = stud_Name;
    }
```

```java
    public String getStud_Rno() {
        return Stud_Rno;
    }

    public void setStud_Rno(String stud_Rno) {
        Stud_Rno = stud_Rno;
    }

    public String getS_Marks1() {
        return S_Marks1;
    }

    public void setS_Marks1(String s_Marks1) {
        S_Marks1 = s_Marks1;
    }

    public String getS_Marks2() {
        return S_Marks2;
    }

    public void setS_Marks2(String s_Marks2) {
        S_Marks2 = s_Marks2;
    }

    public String getS_Marks3() {
        return S_Marks3;
    }

    public void setS_Marks3(String s_Marks3) {
        S_Marks3 = s_Marks3;
    }

    public String getS_TotalMark() {
        return S_TotalMark;
    }

    public void setS_TotalMark(String s_TotalMark) {
        S_TotalMark = s_TotalMark;
    }

    public String getS_EDate() {
        return S_EDate;
    }

    public void setS_EDate(String s_EDate) {
        S_EDate = s_EDate;
    }
}
```

activity_add_student.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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=".Add_StudentActivity"
    android:layout_margin="10dp"
    android:orientation="vertical">
```

```xml
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/tvheader"
        android:id="@+id/tvheader"
        android:layout_margin="20dp"
        android:padding="20dp"
        android:textColor="@color/white"
        android:background="@color/purple_500"/>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:orientation="vertical">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center"
            android:orientation="vertical">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_gravity="center"
                android:layout_marginBottom="30dp"
                android:text="@string/title"
                android:textColor="@color/blue"
                android:textSize="25dp" />



        </LinearLayout>

<!--        <LinearLayout-->
<!--            android:layout_width="match_parent"-->
<!--            android:layout_height="match_parent"-->
<!--            android:layout_gravity="center"-->
<!--            android:orientation="horizontal">-->

<!--            <TextView-->
<!--                android:layout_width="wrap_content"-->
<!--                android:layout_height="wrap_content"-->
<!--                android:layout_marginLeft="20dp"-->
<!--                android:text="@string/Stid"-->
<!--                android:textColor="@color/vred"-->
<!--                android:textSize="20dp" />-->

<!--            <EditText-->
<!--                android:id="@+id/Stuid"-->
<!--                android:layout_width="match_parent"-->
<!--                android:layout_height="wrap_content"-->
<!--                android:textColor="@color/black" />-->

<!--        </LinearLayout>-->


        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
```

```xml
            android:layout_gravity="center"
            android:orientation="horizontal">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginLeft="20dp"
                android:text="@string/Stname"
                android:textColor="@color/vred"
                android:textSize="20dp" />

            <EditText
                android:id="@+id/Stname"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:textColor="@color/black" />

        </LinearLayout>

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center"
            android:orientation="horizontal">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginLeft="20dp"
                android:text="@string/Stroll"
                android:textColor="@color/vred"
                android:textSize="20dp" />

            <EditText
                android:id="@+id/Stroll"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:textColor="@color/black" />

        </LinearLayout>

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center"
            android:orientation="horizontal">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginLeft="20dp"
                android:text="@string/M1"
                android:textColor="@color/vred"
                android:textSize="20dp" />

            <EditText
                android:id="@+id/M1"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:textColor="@color/black" />
```

```xml
        </LinearLayout>


    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_gravity="center"
        android:orientation="horizontal">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:text="@string/M2"
            android:textColor="@color/vred"
            android:textSize="20dp" />

        <EditText
            android:id="@+id/M2"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textColor="@color/black" />

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_gravity="center"
        android:orientation="horizontal">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:text="@string/M3"
            android:textColor="@color/vred"
            android:textSize="20dp" />

        <EditText
            android:id="@+id/M3"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textColor="@color/black" />

    </LinearLayout>



    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_gravity="center"
        android:orientation="horizontal">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:text="@string/total"
```

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```xml
                    android:textColor="@color/vred"
                    android:textSize="20dp" />

            <TextView
                android:id="@+id/tv1"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginLeft="20dp"
                android:textColor="@color/vred"
                android:textSize="20dp" />

        </LinearLayout>

<!--        <LinearLayout-->
<!--            android:layout_width="match_parent"-->
<!--            android:layout_height="match_parent"-->
<!--            android:layout_gravity="center"-->
<!--            android:orientation="horizontal">-->

<!--            <TextView-->
<!--                android:layout_width="wrap_content"-->
<!--                android:layout_height="wrap_content"-->
<!--                android:layout_marginLeft="20dp"-->
<!--                android:text="@string/tvdate"-->
<!--                android:textColor="@color/vred"-->
<!--                android:textSize="20dp"-->
<!--                android:id="@+id/tvdate"/>-->

<!--            <TextView-->
<!--                android:id="@+id/tdate"-->
<!--                android:layout_width="match_parent"-->
<!--                android:layout_height="wrap_content"-->
<!--                android:textColor="@color/black"-->
<!--                android:layout_margin="10dp"-->
<!--                android:padding="10dp"-->
<!--                android:textSize="20dp"/>-->

<!--        </LinearLayout>-->

        <LinearLayout
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:layout_gravity="center"
            android:orientation="horizontal">

            <Button
                android:id="@+id/btn2"
                android:layout_width="394dp"
                android:layout_height="37dp"
                android:background="@color/blue"
                android:text="@string/btn2"
                android:textColor="@color/white"
                android:layout_margin="10dp"/>
        </LinearLayout>

        <LinearLayout
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:layout_gravity="center"
            android:orientation="horizontal">
```
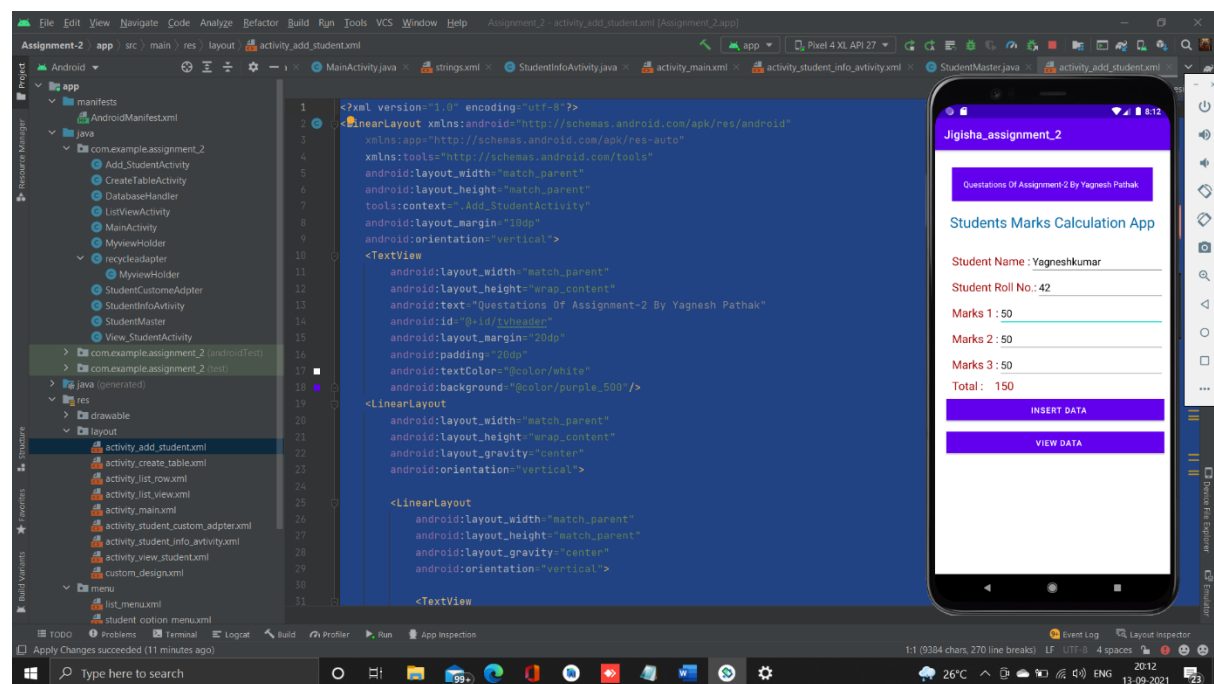
```xml
        <Button
            android:id="@+id/btn3"
            android:layout_width="394dp"
            android:layout_height="37dp"
            android:background="@color/blue"
            android:text="@string/btn3"
            android:textColor="@color/white"
            android:layout_margin="10dp"/>
    </LinearLayout>



</LinearLayout>

</LinearLayout>
```

Output:

Recycleradapter.java

```java
package com.example.assignment_2;

import android.content.Context;
import android.content.Intent;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.TextView;
```

```java
import androidx.annotation.NonNull;
import androidx.recyclerview.widget.RecyclerView;

import java.util.List;

public class recycleadapter extends
RecyclerView.Adapter<recycleadapter.MyviewHolder>
{

    Context context;
    int resource;
    List<StudentMaster>sm;
    public recycleadapter(Context context, int resource,
List<StudentMaster> sm) {

        this.context = context;
        this.resource = resource;
        this.sm = sm;

    }


    @NonNull
    @Override
    public MyviewHolder onCreateViewHolder(@NonNull ViewGroup parent, int
viewType)
    {
        View view =
LayoutInflater.from(parent.getContext()).inflate(resource,parent,false);

        return new MyviewHolder(view);


    }

    @Override
    public void onBindViewHolder(@NonNull MyviewHolder holder, int i)
    {
        holder.txtname.setText(sm.get(i).getStud_Name());
        holder.txttotal.setText(sm.get(i).getS_TotalMark());
        holder.txtdate.setText(sm.get(i).getS_EDate());



    }

    @Override
    public int getItemCount() {
        return sm.size();
    }

    public class MyviewHolder extends RecyclerView.ViewHolder
    {
        TextView txtname , txttotal , txtdate;

        Button addtudent;

        public MyviewHolder(@NonNull View itemView)
        {

            super(itemView);
```

```java
            txtname = itemView.findViewById(R.id.txtname);
            txttotal = itemView.findViewById(R.id.txttotal);
            txtdate = itemView.findViewById(R.id.txtdate);
            addtudent = itemView.findViewById(R.id.addstud);

            addtudent.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View view) {
                    Intent intent = new Intent(context,
View_StudentActivity.class);
                    context.startActivity(intent);

                }
            });
        }
    }
}
```

View_StudentActivity.java

```java
package com.example.assignment_2;

import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import android.os.Bundle;

import java.util.ArrayList;
import java.util.List;

public class View_StudentActivity extends AppCompatActivity
{
    RecyclerView rcv1;
    List<StudentMaster> sm;
    recycleadapter adapter;
    DatabaseHandler DB = new DatabaseHandler(this);

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_view_student);
        rcv1 = findViewById(R.id.rcv1);
        sm = new  ArrayList<StudentMaster>();
        sm.addAll(DB.getAllStudent());
        adapter = new recycleadapter(this,R.layout.custom_design,sm);
        LinearLayoutManager manager = new
LinearLayoutManager(this,LinearLayoutManager.VERTICAL,false);
        rcv1.setLayoutManager(manager);
        rcv1.setAdapter(adapter);


    }
}
```

activity_view_student.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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=".View_StudentActivity">


    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/rcv1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

</LinearLayout>
```

custom_design.xml

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

    <androidx.cardview.widget.CardView
        app:cardElevation="10sp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">

        <RelativeLayout
            android:background="@drawable/ic_launcher_background"
            android:layout_width="match_parent"
            android:layout_height="wrap_content">

            <TextView
                android:id="@+id/lblname"
                android:text="Name :"
                android:layout_marginLeft="10sp"
                android:textColor="@color/black"
                android:textStyle="bold"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"/>

            <TextView
                android:id="@+id/txtname"
                android:layout_toRightOf="@+id/lblname"
                android:textColor="@color/black"
                android:textStyle="bold"
                android:layout_marginLeft="10sp"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"/>

            <TextView
                android:id="@+id/lbltotal"
                android:layout_marginLeft="10sp"
                android:layout_below="@+id/txtname"
                android:textColor="@color/black"
                android:textStyle="bold"
```

```xml
            android:text="Total :"
            android:layout_marginTop="5sp"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"/>


        <TextView
            android:id="@+id/txttotal"
            android:layout_below="@+id/txtname"
            android:textColor="@color/black"
            android:textStyle="bold"
            android:layout_marginTop="5sp"
            android:layout_marginLeft="10sp"
            android:layout_toRightOf="@+id/lbltotal"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"/>

        <TextView
            android:id="@+id/lbldate"
            android:layout_marginLeft="10sp"
            android:layout_below="@+id/lbltotal"
            android:textColor="@color/black"
            android:textStyle="bold"

            android:text="Date Of Entry"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"/>

        <TextView
            android:id="@+id/txtdate"
            android:layout_below="@+id/txttotal"
            android:textColor="@color/black"
            android:textStyle="bold"
            android:layout_toRightOf="@+id/lbldate"
            android:layout_marginLeft="10sp"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"/>

        <Button
            android:id="@+id/addstud"
            android:layout_marginTop="80sp"
            android:layout_centerHorizontal="true"
            android:text="Add Student"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"/>


    </RelativeLayout>


</androidx.cardview.widget.CardView>
</RelativeLayout>
```
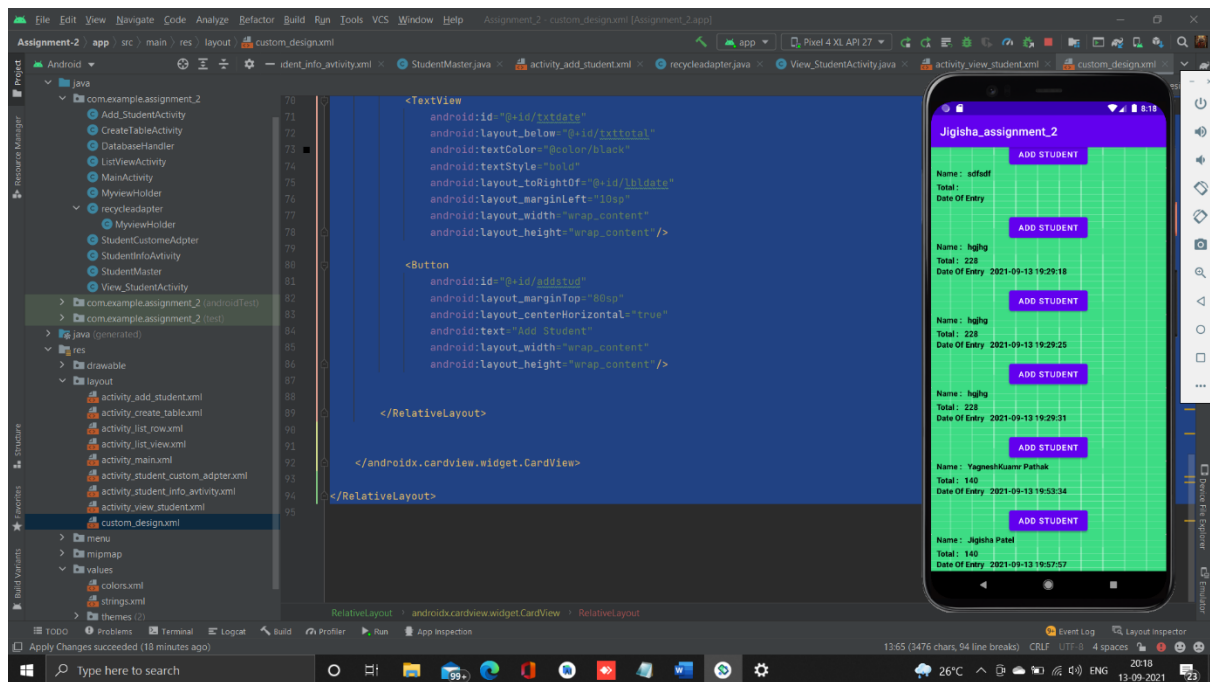
Output :

student_option_menu.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:android="http://schemas.android.com/apk/res/android">

    <item android:title="Add Students Details"
        android:id="@+id/itadd"/>
    <item android:title="View Student Details"
        android:id="@+id/itview"/>
</menu>
```

Database Output :