

QUIZ APP

22CSA585: MOBILE APPLICATION DEVELOPMENT LAB

Quiz App

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INTRODUCTION

I have created an interactive quiz application designed to make learning fun, engaging, and easy to manage. It is perfect for both students and teachers, offering a simple way to create, take, and track quizzes.

The app comes with four main features:

- Login: Get secure access to your personalized dashboard.
- Registration: New here? Sign up effortlessly to get started.
- Create Quiz: Teachers can easily craft quizzes tailored to their needs.
- Start Quiz: Jump right in and put your knowledge to the test!

In addition to that, it lets users view detailed results, whether you're a student checking your score or a teacher analysing performance. Plus, it keeps track of everyone who attended, along with their usernames. Whether you're learning or teaching, this app makes the whole process smooth, insightful, and a bit more fun!

LOGIN

When someone opens this app, he/she will be directly going to the Login page. Here you can enter your username and password.

Initially, the button, EditText components were declared and taken its reference. Then gives an onclick action to the login button. That action checks whether the username or password field is empty or not, based on that toast message is shown. Else, it will go for authentication. After authentication, it will intent you to the home page with username using putExtra(). If you are new to this application, you have the option to register. It is done by the register button. It will navigate to the registration activity.

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"
android:background="@drawable/1"
tools:context=".MainActivity">

    <TextView
```

```
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Username"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.144"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.414" />

<EditText
    android:id="@+id/name"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="username"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="1.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.392" />

<TextView
    android:id="@+id/textView5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Password"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.143"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<Button
    android:id="@+id/login"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Login"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.238"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.683" />

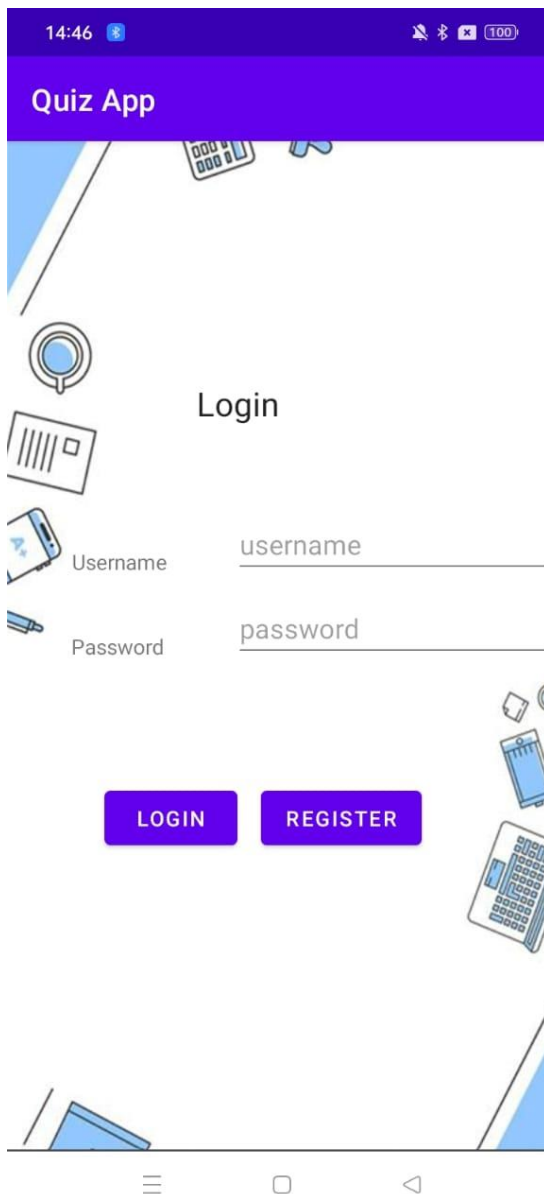
<Button
    android:id="@+id/reg"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Register"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.662"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.683" />

<TextView
    android:id="@+id/textView6"
    android:layout_width="74dp"
```

```
        android:layout_height="28dp"
        android:text="Login"
        android:textAppearance="@style/TextAppearance.AppCompat.Large"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.439"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.248" />

    <EditText
        android:id="@+id/password"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="password"
        android:inputType="textPassword"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="1.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.481" />

</androidx.constraintlayout.widget.ConstraintLayout>
```



MainActivity.java

```
package com.example.quizapp;

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;

public class MainActivity extends AppCompatActivity {
    Button reg,login;
    UserDbHandler db;
```

```

EditText n,p;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    reg = findViewById(R.id.reg);
    login = findViewById(R.id.login);
    n = findViewById(R.id.name);
    p = findViewById(R.id.password);
    db = new UserDbHandler(this);

    //login
    login.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            //fill up message

if(n.getText().toString().equals("")||p.getText().toString().equals(""))
        {
            Toast.makeText(MainActivity.this, "Enter Username and password",
Toast.LENGTH_SHORT).show();
            return;
        }
        //user authentication
        Cursor res = db.getAllData();
        if(res.getCount() == 0) {
            // show message if nothing found
            Toast.makeText(MainActivity.this, "Invalid input",
Toast.LENGTH_SHORT).show();
            return;
        }

        while (res.moveToNext()) {

if((res.getString(0).equals(n.getText().toString())) && (res.getString(1).equals(p.getText().toString())))
        {
            Intent i = new Intent(getApplicationContext(),HomePage.class);
            i.putExtra("username",n.getText().toString());
            startActivity(i);
        }

        }

    });

    //go to Registration activity
    reg.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent i = new Intent(getApplicationContext(),
Registration_Activity.class);
            startActivity(i);
        }
    });
}
}

```

REGISTRATION

Here the user can input a username and password which will be directly inserted into the user table. After clicking the register button, it will take you to the login page.

Registration_Activity.java

```
package com.example.quizapp;

import androidx.appcompat.app.AppCompatActivity;

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

public class Registration_Activity extends AppCompatActivity {

    Button back, reg;
    UserDbHandler myDb;
    EditText n, p;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_registration);
        n=findViewById(R.id.regname);
        p=findViewById(R.id.regpass);
        back = findViewById(R.id.back);
        reg = findViewById(R.id.register);
        myDb = new UserDbHandler(this);

        /*register*/
        //Insert into DB
        //Go back to login after insertion
        reg.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                boolean isInserted =
myDb.insertData(n.getText().toString(),p.getText().toString() );
                if(isInserted == true)
                {
                    Intent i = new
Intent(getApplicationContext(),MainActivity.class);
                    startActivity(i);
                }
                else
                    Toast.makeText(Registration_Activity.this,"Data not
Inserted",Toast.LENGTH_LONG).show();
            }
        });
        //Back button
        back.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent i = new Intent(getApplicationContext(),MainActivity.class);
                startActivity(i);
            }
        });
    }
}
```

```
}
}
```

activity_registration.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=".Registration_Activity">
    <TextView
        android:id="@+id/textView7"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Username"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.143"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.271" />

    <TextView
        android:id="@+id/textView8"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Password"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.143"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.389" />

    <EditText
        android:id="@+id/regname"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:text=""
        android:hint="username"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.92"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.26" />

    <Button
        android:id="@+id/register"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="register"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.262"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.59" />
```



```
<Button
    android:id="@+id/back"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Back"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.773"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.59" />

<EditText
    android:id="@+id/regpass"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textPassword"
    android:hint="password"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.925"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.365" />

</androidx.constraintlayout.widget.ConstraintLayout>
```



Username

Password

REGISTER

BACK

If you notice, you can see a database handler called UserDbhandler is used. It is a class file where it creates all the required tables in quiz.db database but mainly focuses on the

manipulation of the user table. The user table stores the registered user's username and password. The username acts as a primary key.

UserDbhandler.java

```
package com.example.quizapp;
import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

public class UserDbHandler extends SQLiteOpenHelper {
    public static final String DATABASE_NAME = "quiz.db";
    public static final String TABLE_NAME = "user";
    public static final String COL_1 = "USERNAME";
    public static final String COL_2 = "PASSWORD";

    public UserDbHandler(Context context) {
        super(context, DATABASE_NAME, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("create table " + TABLE_NAME + " (USERNAME TEXT PRIMARY KEY,PASSWORD TEXT)");
        db.execSQL("create table questions (id INTEGER PRIMARY KEY AUTOINCREMENT,question TEXT,a TEXT,b TEXT, c TEXT, d TEXT,answer Text,point integer,code TEXT)");
        db.execSQL("create table questionpaper (code TEXT PRIMARY KEY,Title TEXT,number of questions INTEGER,resultcode integer)");
        db.execSQL("create table mark (id Integer PRIMARY KEY AUTOINCREMENT,username TEXT,code TEXT,mark integer)");
    }

    @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 password) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(COL_1,name);
        contentValues.put(COL_2,password);
        long result = db.insert(TABLE_NAME,null ,contentValues);
        if(result == -1)
            return false;
        else
            return true;
    }

    public Cursor getAllData() {
        SQLiteDatabase db = this.getWritableDatabase();
        Cursor res = db.rawQuery("select * from "+TABLE_NAME,null);
        return res;
    }
}
```

```

public boolean updateData(String name,String password) {
    SQLiteDatabase db = this.getWritableDatabase();
    ContentValues contentValues = new ContentValues();
    contentValues.put(COL_2,name);
    contentValues.put(COL_2,password);
    db.update(TABLE_NAME, contentValues, "USERNAME = ?",new String[] { name });
    return true;
}

public Integer deleteData (String username) {
    SQLiteDatabase db = this.getWritableDatabase();
    return db.delete(TABLE_NAME, "ID = ?",new String[] {username});
}
}

```

HOME PAGE

From this page, you can navigate to start the quiz, create a quiz and see the results of the quiz that you conducted. Only while starting the quiz putExtra() is used(username) which will help to record the username in the mark table.

HomePage.java

```

package com.example.quizapp;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

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

public class HomePage extends AppCompatActivity {
    Button c,s;String un;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home_page);
        c=findViewById(R.id.create);
        s=findViewById(R.id.start);
        Intent obj = getIntent();
        un = obj.getSerializableExtra("username").toString();
        //create quiz
        c.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

```

```

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

//View quiz Results
c.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), score.class);
        startActivity(i);
    }
});
//start quiz
s.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent ii = new
Intent(getApplicationContext(), StartQuiz.class);
        ii.putExtra("username", un);
        startActivity(ii);
    }
});
}
}
}

```

activity_home_page.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=".HomePage">
    <Button
        android:id="@+id/create"
        android:layout_width="265dp"
        android:layout_height="41dp"
        android:text="Create"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.433" />

    <Button
        android:id="@+id/score"
        android:layout_width="265dp"
        android:layout_height="41dp"
        android:text="result"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"

```

```

        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.627" />

        <Button
            android:id="@+id/start"
            android:layout_width="265dp"
            android:layout_height="41dp"
            android:text="Start"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent"
            app:layout_constraintVertical_bias="0.539" />

    </androidx.constraintlayout.widget.ConstraintLayout>

```

ResultDbHandler.java

```

package com.example.quizapp;
import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

public class ResultDbHandler extends SQLiteOpenHelper {
    public static final String DATABASE_NAME = "quiz.db";
    public static final String TABLE_NAME = "mark";
    public static final String COL_1 = "username";
    public static final String COL_2 = "code";
    public static final String COL_3 = "mark";
    public ResultDbHandler(Context context) {
        super(context, DATABASE_NAME, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("create table " + TABLE_NAME + " (id TEXT PRIMARY KEY  

        AUTOINCREMENT,username TEXT,code TEXT,mark integer)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion)
    {
        db.execSQL("DROP TABLE IF EXISTS "+TABLE_NAME);
        onCreate(db);
    }

    public boolean insertData(String u,String c,int m) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(COL_1,u);
        contentValues.put(COL_2,c);
        contentValues.put(COL_3,m);
    }
}

```

```

        long result = db.insert(TABLE_NAME,null ,contentValues);
        if(result == -1)
            return false;
        else
            return true;
    }

    public Cursor getAllData() {
        SQLiteDatabase db = this.getWritableDatabase();
        Cursor res = db.rawQuery("select * from "+TABLE_NAME,null);
        return res;
    }

    public Integer deleteData (String code) {
        SQLiteDatabase db = this.getWritableDatabase();
        return db.delete(TABLE_NAME, "code = ?",new String[] {code});
    }
}

```

CREATE QUIZ

Creating a quiz is like first we create a question paper then the questions will be added to it. So here we use 2 tables to record question paper details (Quiz title, total number of questions, a code to identify the paper which is set by you) we use question paper table and for recording the questions of all question papers we use another table called questions table.

CreateQuiz.java

```

package com.example.quizapp;

import androidx.appcompat.app.AppCompatActivity;

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

import java.util.Random;

public class CreateQuiz extends AppCompatActivity {
    Button n;
    EditText title,code,noofqtns;
    TextView tv;
}

```

```

        QuestionPaperDbHandler db ;
        final int min = 2000;
        final int max = 80000;
        final int random = new Random().nextInt((max - min) + 1) + min;

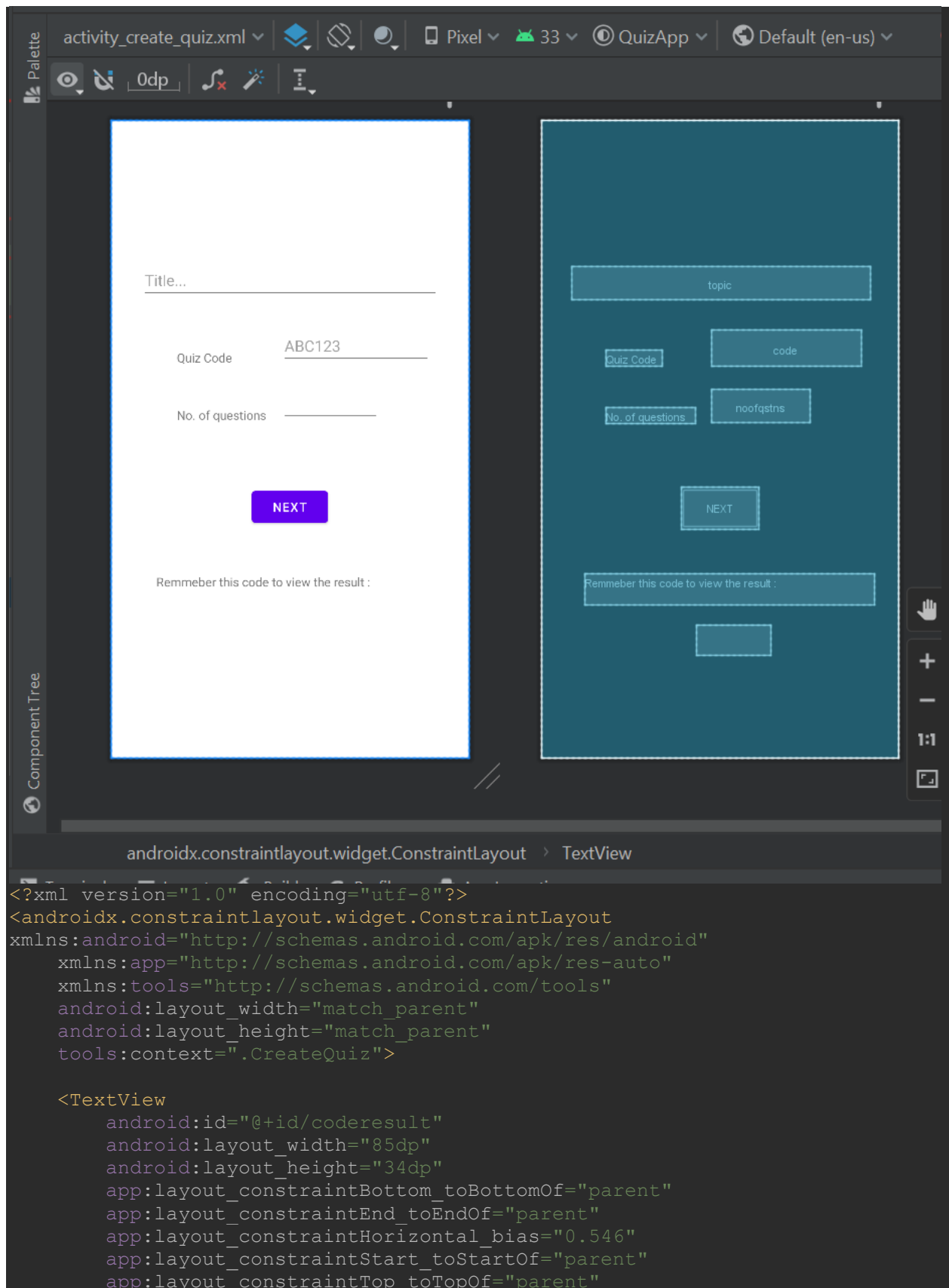
        @Override
        protected void onCreate(Bundle savedInstanceState) {
            super.onCreate(savedInstanceState);
            setContentView(R.layout.activity_create_quiz);
            n=findViewById(R.id.next);
            tv=findViewById(R.id.coderesult);
            tv.setText(random);
            title = findViewById(R.id.topic);
            code=findViewById(R.id.code);
            noofqtns=findViewById(R.id.noofqstns);
            db = new QuestionPaperDbHandler(this);

            n.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View view) {
                    boolean r =
db.insertData(code.getText().toString(),title.getText().toString(),Integer.pa
rseInt(noofqtns.getText().toString()),random);
                    if (r==true)
                    {
                        Intent i = new Intent(CreateQuiz.this,
AddQuestion.class);

                        i.putExtra("code", code.getText().toString());
                        i.putExtra("noofqtn", noofqtns.getText().toString());
                        startActivity(i);
                    }
                    else
                        Toast.makeText(CreateQuiz.this, "Enter Valid Code",
Toast.LENGTH_SHORT).show();
                }
            });
        }
    }
}

```

activity_create_quiz.xml




```
app:layout_constraintVertical_bias="0.83" />

<EditText
    android:id="@+id/topic"
    android:layout_width="342dp"
    android:layout_height="38dp"
    android:ems="10"
    android:hint="Title..."
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.492"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.243" />

<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="No. of questions"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.243"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.462" />

<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Quiz Code"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.216"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.369" />

<EditText
    android:id="@+id/noofqstns"
    android:layout_width="113dp"
    android:layout_height="39dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.654"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.446" />

<EditText
    android:id="@+id/code"
    android:layout_width="172dp"
    android:layout_height="42dp"
```

```

        android:ems="10"
        android:hint="ABC123"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.815"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.348" />

<Button
    android:id="@+id/next"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="next"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.614" />

<TextView
    android:id="@+id/textView9"
    android:layout_width="333dp"
    android:layout_height="37dp"
    android:text="Remmeber this code to view the result : "
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.653"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.749" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

AddQuestions.java

```

package com.example.quizapp;

import androidx.appcompat.app.AppCompatActivity;

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

public class AddQuestion extends AppCompatActivity {
    EditText qtn,a,b,c,d,ans,points;
    Button save,reset;
    int noofqtns;
    QuestionDbHandler db;
    @Override
    protected void onCreate(Bundle savedInstanceState) {

```

```

super.onCreate(savedInstanceState);
setContentView(R.layout.activity_add_question);

Intent i=getIntent();
String code=i.getSerializableExtra("code").toString();
noofqtns=Integer.parseInt(i.getSerializableExtra("noofqtn").toString());

qtn=findViewById(R.id.qstn);
a=findViewById(R.id.a);
b=findViewById(R.id.b);
c=findViewById(R.id.c);
d=findViewById(R.id.d);
ans=findViewById(R.id.ans);
points=findViewById(R.id.points);

save = findViewById(R.id.save);
reset=findViewById(R.id.reset);

db=new QuestionDbHandler(this);

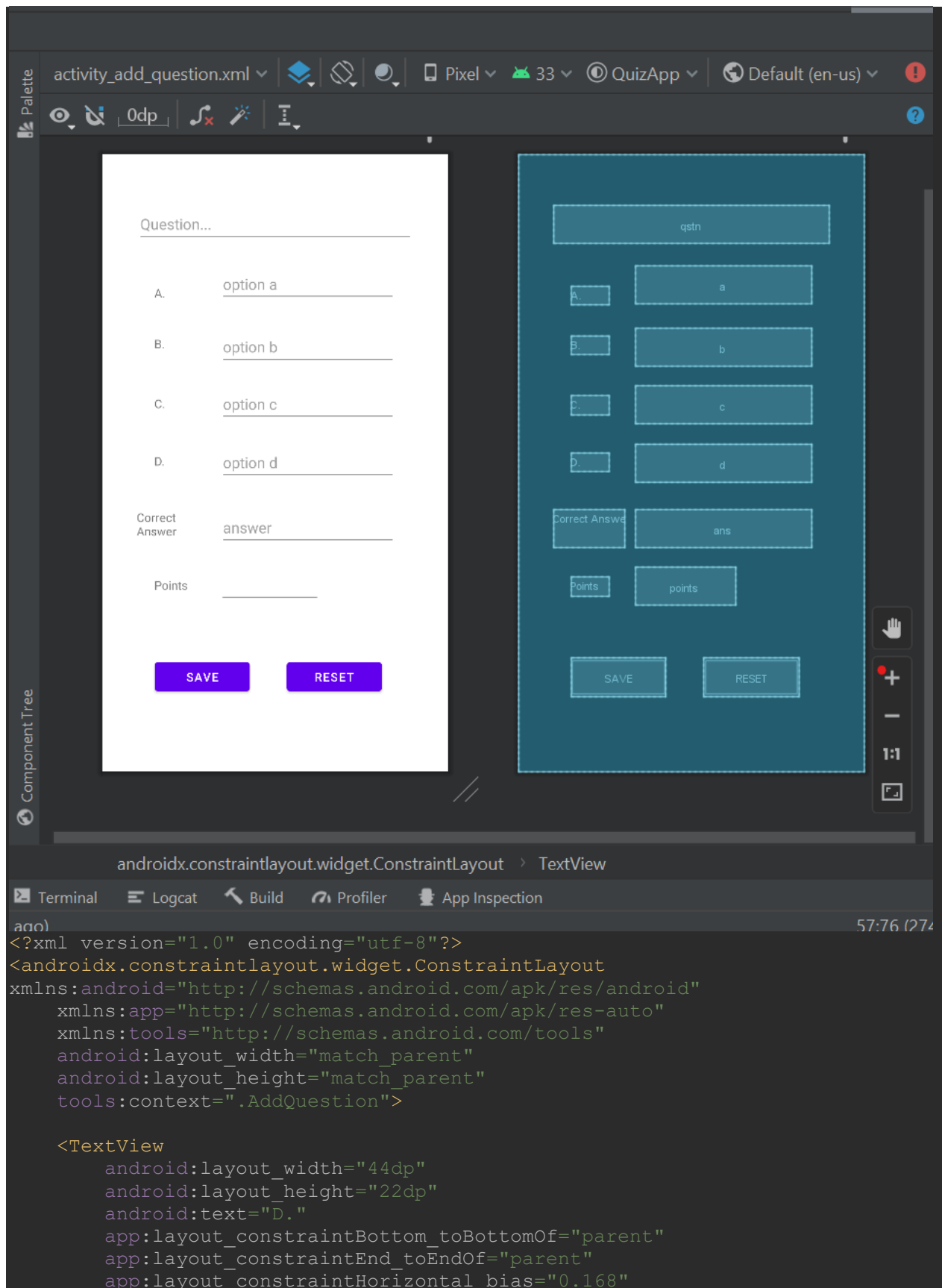
//save
save.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        if(noofqtns>=1)
        {
            db.insertData(qtn.getText().toString(),a.getText().toString(),b.getText().toString(),c
            .getText().toString(),d.getText().toString(),ans.getText().toString(),Integer.parseInt
            (String.valueOf(points.getText())));
            qtn.setText("");
            a.setText("");
            b.setText("");
            c.setText("");
            d.setText("");
            ans.setText("");
            points.setText("");
            noofqtns=noofqtns-1;
            if(noofqtns==0){
                Intent i = new Intent(AddQuestion.this,HomePage.class);
                i.putExtra("code",code);
                startActivity(i);
            }
        }
    }
});
//reset all
reset.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        qtn.setText("");
        a.setText("");
        b.setText("");
        c.setText("");
        d.setText("");
        ans.setText("");
        points.setText("");
    }
}

```

```
        }  
    }  
}
```

Activity_add_questions.xml

Fill up the edit text with the question, its 4 options, and its point. Its design has only 6 text fields to enter questions, options, and points. Based on the number of questions, this page will be loaded after clicking the next button. At the same time, these data are inserted into the table and then erased from the UI component. After adding the question you will be redirected to the home page.



```
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.499" />

<TextView
    android:layout_width="44dp"
    android:layout_height="22dp"
    android:text="A."
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.168"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.218" />

<TextView
    android:layout_width="85dp"
    android:layout_height="44dp"
    android:text="Correct Answer"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.125"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.612" />

<TextView
    android:layout_width="44dp"
    android:layout_height="22dp"
    android:text="C."
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.168"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.403" />

<TextView
    android:id="@+id/textView11"
    android:layout_width="44dp"
    android:layout_height="22dp"
    android:text="B."
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.168"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.303" />

<Button
    android:id="@+id/reset"
    android:layout_width="113dp"
    android:layout_height="46dp"
    android:text="reset"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.734"
```

```
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.87" />

<Button
    android:id="@+id/save"
    android:layout_width="113dp"
    android:layout_height="46dp"
    android:text="Save"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.208"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.87" />

<EditText
    android:id="@+id/d"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="option d"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.691"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<EditText
    android:id="@+id/c"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="option c"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.691"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.399" />

<EditText
    android:id="@+id/a"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="option a"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.691"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.192" />
```

```
<EditText
    android:id="@+id/b"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="option b"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.691"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.3" />

<EditText
    android:id="@+id/qstn"
    android:layout_width="328dp"
    android:layout_height="45dp"
    android:ems="10"
    android:hint="Question..."
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.493"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.088" />

<EditText
    android:id="@+id/ans"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="answer"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.691"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.612" />

<EditText
    android:id="@+id/points"
    android:layout_width="120dp"
    android:layout_height="45dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.477"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.711" />

<TextView
    android:id="@+id/textView10"
```



```

        android:layout_width="44dp"
        android:layout_height="22dp"
        android:text="Points"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.168"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.706" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

START QUIZ

When you click the start quiz button from the home page you will get an activity with a single UI component where you will enter the code to start the quiz. It would show toast if you left the field empty and if you enter the wrong code. Else, you will move to the next activity.

StartQuiz.java

```

package com.example.quizapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.*;

public class StartQuiz extends AppCompatActivity {
    Button enter, back;
    EditText qc;
    QuestionPaperDbHandler mdb;
    String un ;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_start_quiz);

        enter = findViewById(R.id.enter);
        back = findViewById(R.id.back_to_home);
        qc = findViewById(R.id.student_code);
        mdb = new QuestionPaperDbHandler(this);

        Intent obj = getIntent();
        un = obj.getSerializableExtra("username").toString();

        //enter
        enter.setOnClickListener(new View.OnClickListener() {
            @Override

```

```

        public void onClick(View view) {

if(qc.getText().toString().equals(null)||qc.getText().toString().equals(""))
    {
        Toast.makeText(StartQuiz.this, "Enter quiz code",
Toast.LENGTH_SHORT).show();
    }
    else
    {
        //check whether it is valid code or not
        try{
            Cursor res = mdb.selectall();

            if(res.getCount() == 0)
            {
                // show message if nothing found
                Toast.makeText(StartQuiz.this, "Enter Valid
Code", Toast.LENGTH_SHORT).show();
                return;
            }
            else
            {
                while (res.moveToNext()) {
                    if
(res.getString(0).equals(qc.getText().toString())) {
                        Intent i = new Intent(StartQuiz.this,
DisplayQuiz.class);
i.putExtra("code",qc.getText().toString());
                        i.putExtra("username",un);
                        startActivity(i);
                    }
                }
            }
        }
        catch (Exception e)

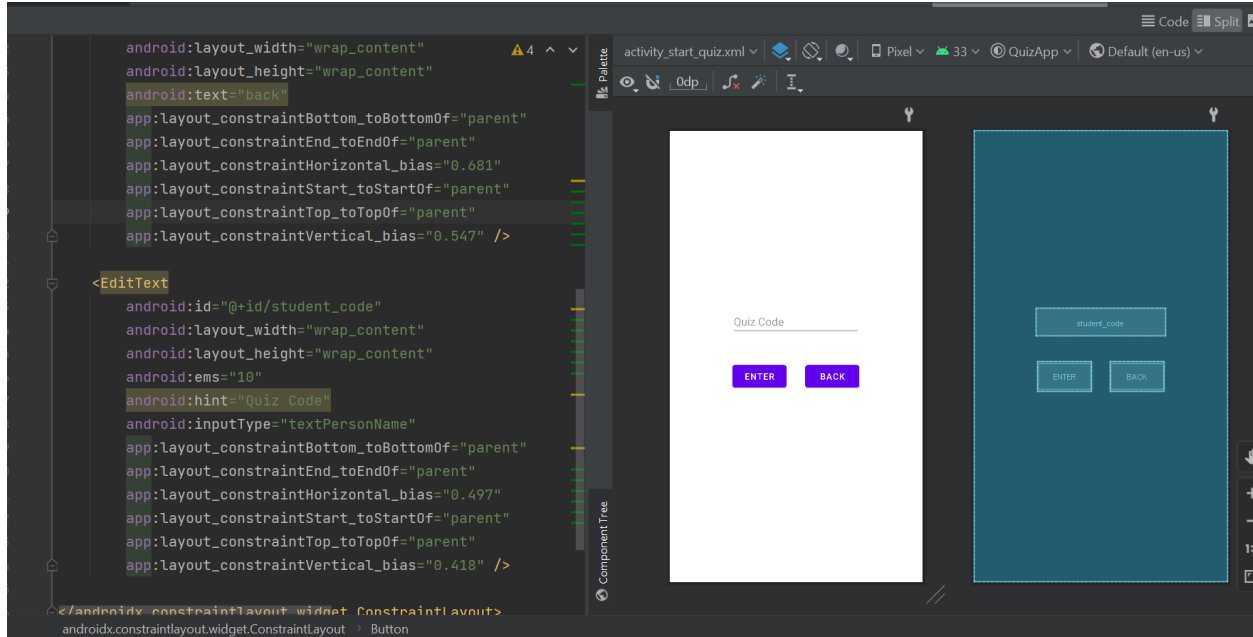
{Toast.makeText(StartQuiz.this,e.toString(),Toast.LENGTH_LONG).show();}

    }

});
//back
back.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new
Intent(getApplicationContext(),HomePage.class);
        startActivity(i);
    }
});
}}

```

Activity_start_quiz.xml

**SCORE**

After completing the quiz you are redirected to this page which will show the result to student.

Score.java

```
package com.example.quizapp;

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;

public class score extends AppCompatActivity {
    ResultDbHandler db ;
    String code;
    String username;
    Button btn;

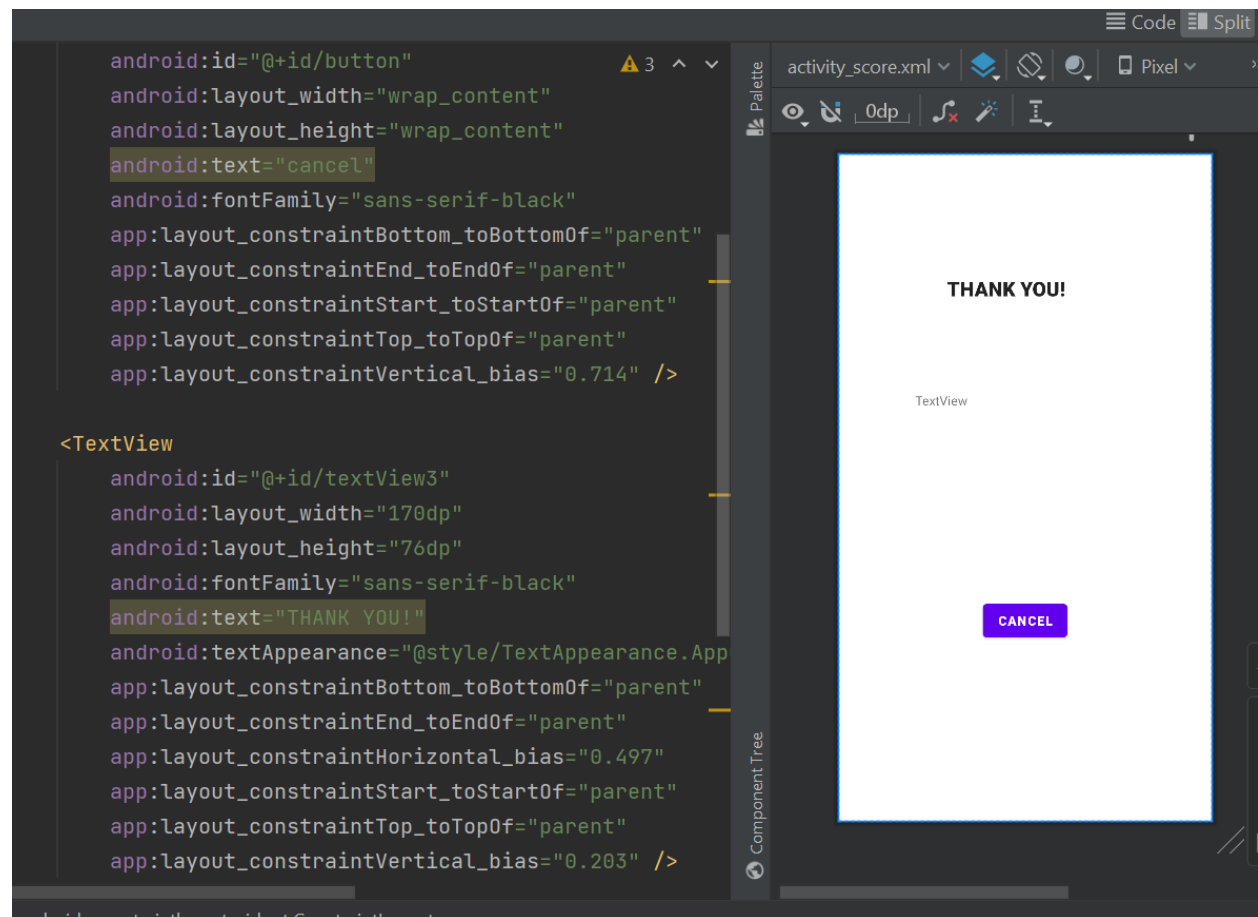
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_score);
        Intent i = getIntent();
        code = i.getSerializableExtra("code").toString();
        username = i.getSerializableExtra("username").toString();
        btn.findViewById(R.id.score) ;
        Cursor c = db.getAllData();
        while(c.moveToNext())
```

```

    {
        if(c.getString(1).equals(username) && c.getString(2).equals(code))
        {
            score.setText(c.getInt(3));
        }
    }
    btn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent i = new Intent(score.this, HomePage.class);
            startActivity(i);
        }
    });
}
}

```

activity_score.xml



RESULT

The one who put the question will get a code to view the marks so when that code enter here, he can see the people who attended the exam and there marks.

Result.java

```

package com.example.quizapp;

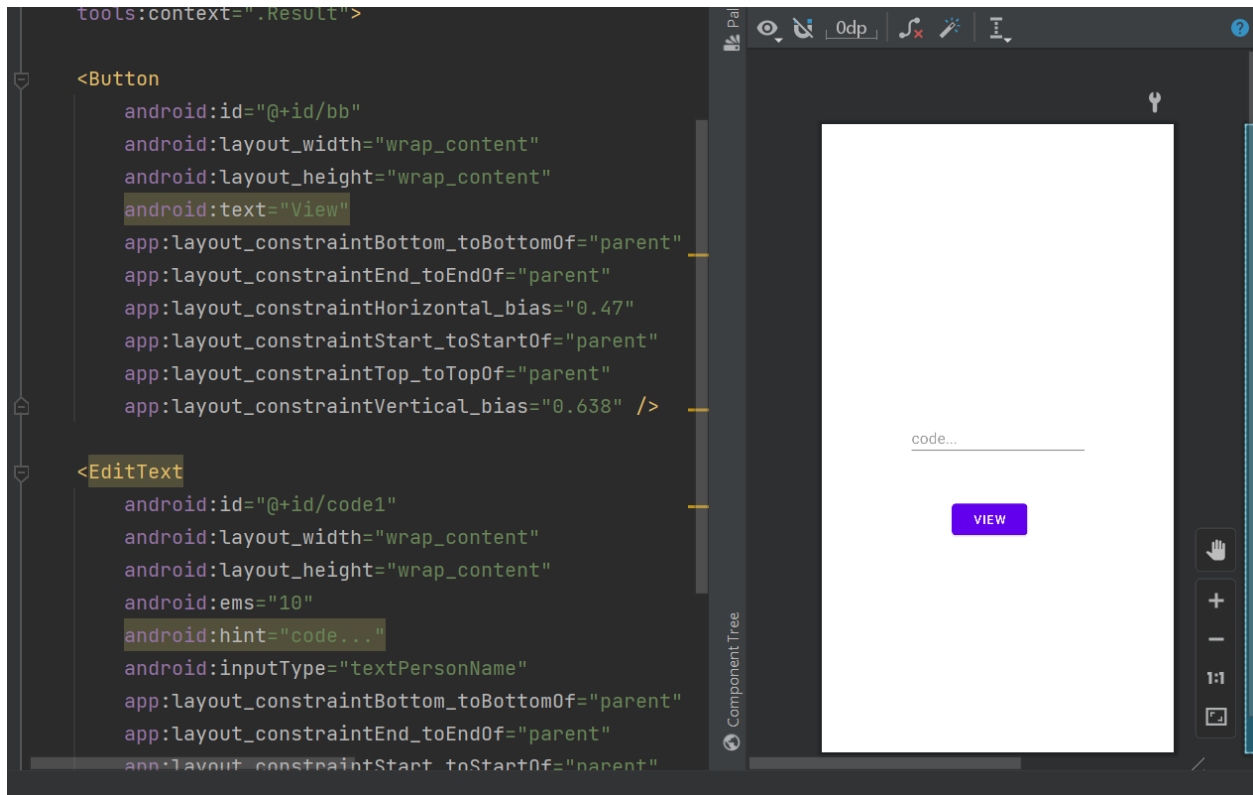
import androidx.appcompat.app.AppCompatActivity;

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

public class Result extends AppCompatActivity {
    Button btn ;QuestionPaperDbHandler db;
    EditText et;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_result);
        btn =findViewById(R.id.bb);
        et=findViewById(R.id.code1);
        //back to
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                db = new QuestionPaperDbHandler(Result.this);
                Cursor c =db.selectall();
                while (c.moveToNext()){
                    if(c.getInt(4)==Integer.parseInt(et.getText())){
                        String code = c.getString(8);
                        Intent i = new
Intent(Result.this,view_results.class);
                        i.putExtra("code",code);
                        startActivity(i);
                    }
                }
            }
        });
    }
}

```

activity_result.xml



QuestionDbHnadler.java

```
package com.example.quizapp;

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

public class QuestionDbHandler extends SQLiteOpenHelper {
    public static final String DATABASE_NAME = "quiz.db";
    public static final String TABLE_NAME = "questions";
    public static final String COL_1 = "question";
    public static final String COL_2 = "a";
    public static final String COL_3 = "b";
    public static final String COL_4 = "c";
    public static final String COL_5 = "d";
    public static final String COL_6 = "answer";
    public static final String COL_7 = "point";
    public static final String COL_8 = "code";

    public QuestionDbHandler(Context context) {
        super(context, DATABASE_NAME, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("create table " + TABLE_NAME + " (id INTEGER PRIMARY KEY
```

```

AUTOINCREMENT,question TEXT,a TEXT,b TEXT, c TEXT, d TEXT,answer Text,point
integer,code 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 q,String a,String b,String c,String
d,String answer,int p,String co) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(COL_1,q);
        contentValues.put(COL_2,a);
        contentValues.put(COL_3,b);
        contentValues.put(COL_4,c);
        contentValues.put(COL_5,d);
        contentValues.put(COL_6,answer);
        contentValues.put(COL_7,p);
        contentValues.put(COL_8,co);
        long result = db.insert(TABLE_NAME,null ,contentValues);
        if(result == -1)
            return false;
        else
            return true;
    }

    public Cursor getAllData() {
        SQLiteDatabase db = this.getWritableDatabase();
        Cursor res = db.rawQuery("select * from "+TABLE_NAME,null);
        return res;
    }

    public Cursor returnqtnpaper(String code) {
        SQLiteDatabase db = this.getWritableDatabase();
        Cursor res = db.rawQuery("SELECT * FROM questions WHERE code=?", new
String[]{String.valueOf(code)});
        return res;
    }

    public boolean updateData(String q,String a,String b,String c,String
d,String answer,int p) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(COL_1,q);
        contentValues.put(COL_2,a);
        contentValues.put(COL_3,b);
        contentValues.put(COL_4,c);
        contentValues.put(COL_5,d);
        contentValues.put(COL_6,answer);
        contentValues.put(COL_7,p);
        db.update(TABLE_NAME, contentValues, "id = ?",new String[] {  });
        return true;
    }
}

```

```

    public Integer deleteData (String code) {
        SQLiteDatabase db = this.getWritableDatabase();
        return db.delete(TABLE_NAME, "code = ?",new String[] {code});
    }
}

```

QuestionPaperDbHandler.java

```

public class QuestionPaperDbHandler extends SQLiteOpenHelper {
    public static final String DATABASE_NAME = "quiz.db";
    public static final String TABLE_NAME = "questionpaper";
    public static final String COL_1 = "code";
    public static final String COL_2 = "Title";
    public static final String COL_3 = "number_of_questions";
    public static final String COL_4 = "random";
    public QuestionPaperDbHandler(Context context) {
        super(context, DATABASE_NAME, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("create table " + TABLE_NAME + " (code TEXT PRIMARY KEY,Title TEXT,number_of_questions INTEGER)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        db.execSQL("DROP TABLE IF EXISTS "+TABLE_NAME);
        onCreate(db);
    }

    public boolean insertData(String code, String title, int numberOfQuestions, int r) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(COL_1,code);
        contentValues.put(COL_2,title);
        contentValues.put(COL_3,numberOfQuestions);
        contentValues.put(COL_4,r);
        long result = db.insert(TABLE_NAME,null ,contentValues);
        if(result == -1)
            return false;
        else
            return true;
    }

    public Cursor selectall() {
        SQLiteDatabase db = this.getWritableDatabase();
        Cursor res = db.rawQuery("select * from "+TABLE_NAME,null);
        return res;
    }
}

```



```

    public boolean updateData(String code,String title,int noofqtns) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(COL_1,code);
        contentValues.put(COL_2,title);
        contentValues.put(COL_3,noofqtns);
        db.update(TABLE_NAME, contentValues, "code = ?",new String[] { code
    });

        return true;
    }
    public Integer deleteData (String code) {
        SQLiteDatabase db = this.getWritableDatabase();
        return db.delete(TABLE_NAME, "code = ?",new String[] {code});
    }
}

```

view_result.java

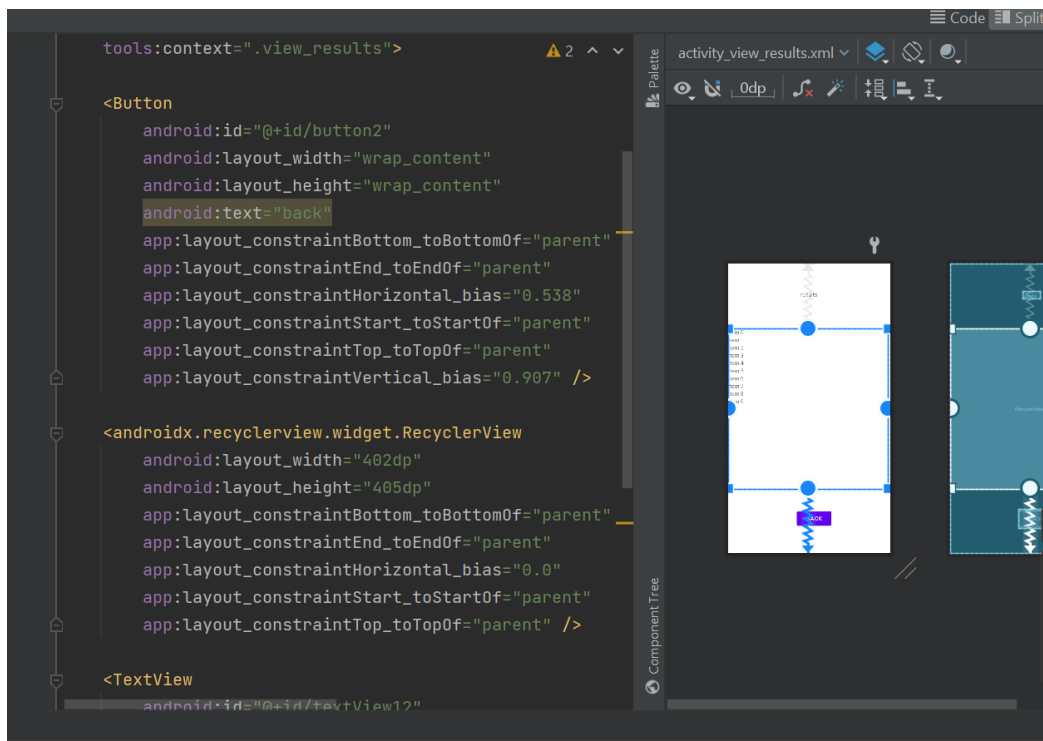
```

public class view_results extends AppCompatActivity {
    Button btn;
    ResultDbHandler myDb;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_view_results);
        btn.findViewById(R.id.button2);
        myDb = new ResultDbHandler(view_results.this);
        Cursor res = myDb.getAllData();
        ArrayList<resultclass> data = new ArrayList<>();
        resultclass user ;
        Intent i =getIntent();
        String code = i.getSerializableExtra("code").toString();
        while (res.moveToNext()) {
            if(res.getString(2).equals(code)) {
                user = new resultclass();
                user.setMark(res.getString(0));
                user.setName(res.getString(1));
                data.add(user);
            }
        }
        RecyclerView rv = findViewById(R.id.rv);
        CustomListAdapter adapter = new CustomListAdapter(data);
        // Attach the adapter to the recyclerview to populate items
        rv.setAdapter(adapter);
        // Set layout manager to position the items
        rv.setLayoutManager(new LinearLayoutManager(this));

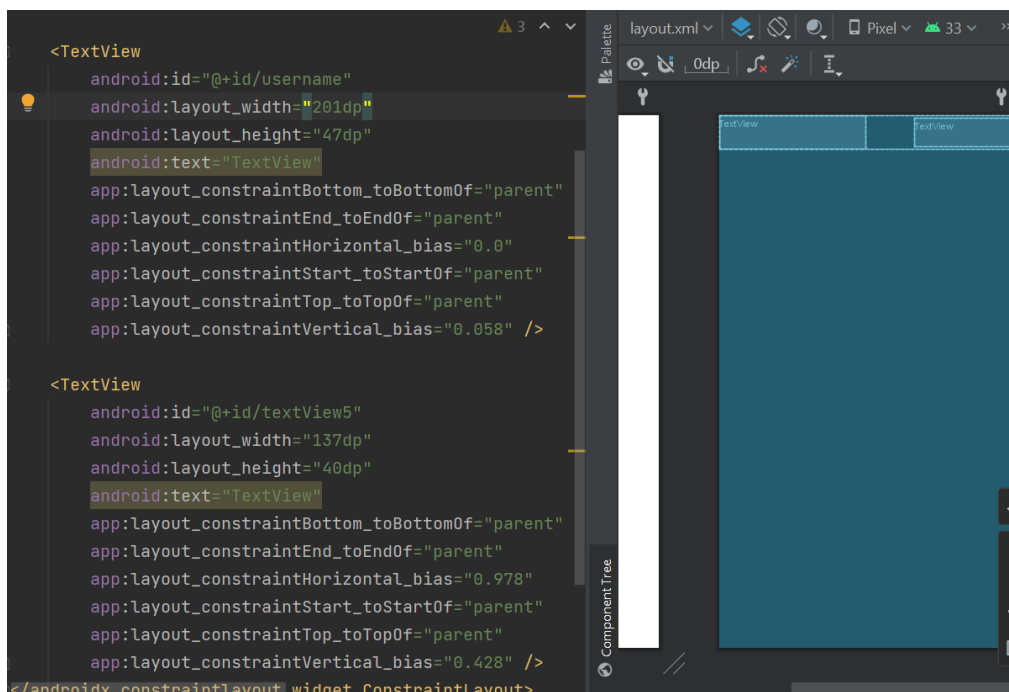
        //back to
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent i = new Intent(view_results.this,HomePage.class);
                startActivity(i);
            }
        });
    }
}

```

activity_view_results.xml



template.xml



CustomListAdapter.java

```
package com.example.quizapp;

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

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

import java.util.List;

public class CustomListAdapter extends
RecyclerView.Adapter<CustomListAdapter.ViewHolder> {
    private List<resultclass> result;

    // Pass in the contact array into the constructor
    public CustomListAdapter(List<resultclass> contacts) {
        result = contacts;
    }
    @NonNull
    @Override
    public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int
viewType) {
        Context context = parent.getContext();
        LayoutInflater inflater = LayoutInflater.from(context);

        // Inflate the custom layout
        View contactView = inflater.inflate(R.layout.layout, parent, false);

        // Return a new holder instance
        ViewHolder viewHolder = new ViewHolder(contactView);
        return viewHolder;
    }

    @Override
    public void onBindViewHolder(@NonNull ViewHolder holder, int position) {
        resultclass r = result.get(position);

        // Set item views based on your views and data model
        TextView textView = holder.nameTextView;
        textView.setText(r.getName());
        TextView textView1 = holder.mark;
        textView1.setText(r.getMark());
    }

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

```

// Provide a direct reference to each of the views within a data item
// Used to cache the views within the item layout for fast access
public class ViewHolder extends RecyclerView.ViewHolder {
    // Your holder should contain a member variable
    // for any view that will be set as you render a row
    public TextView nameTextView,num;

    // We also create a constructor that accepts the entire item row
    // and does the view lookups to find each subview
    public ViewHolder(View itemView) {
        // Stores the itemView in a public final member variable that can
be used
        // to access the context from any ViewHolder instance.
        super(itemView);

        nameTextView = (TextView) itemView.findViewById(R.id.username);
        mark = itemView.findViewById(R.id.textView5);
    }
}

```

Resultclass.java

```

package com.example.quizapp;

public class resultclass {
    private String name,mark;

    public String getName() {return name;}
    public void setName(String name) {this.name = name;}
    public String getMark(){return mark;}
    public void setMark(String mark){this.mark = mark;}
}

```