ASSIGNMENT 5

Mobile Application Development

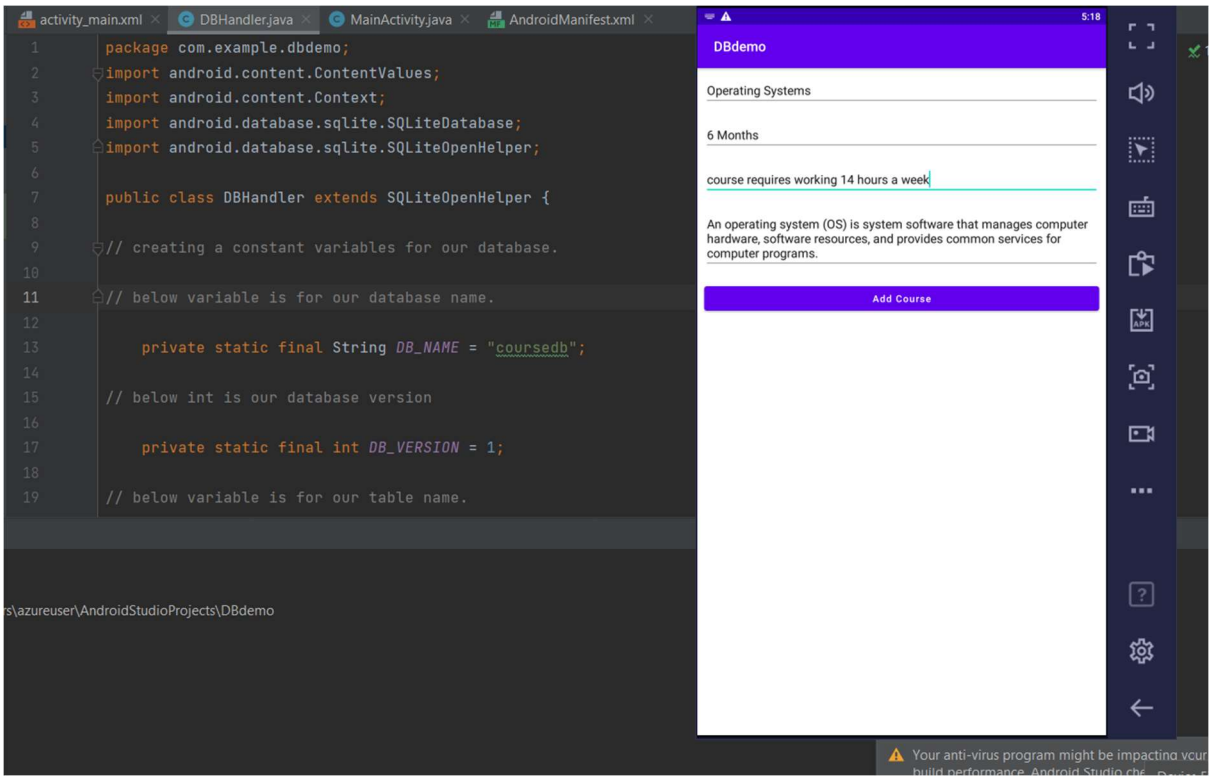
Name: Shubham Sharma

Branch: Information Technology

College Id: 19IT57

Data: 19-03-2022

Output:



Code for Activity_main.xml:

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

<LinearLayout

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

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

   android:layout_width="match_parent"
```

```
android:layout_height="match_parent"
android:orientation="vertical"
tools:context=".MainActivity">
<!--Edit text to enter course name-->
<EditText
    android:id="@+id/idEdtCourseName"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:hint="Enter course Name" />
<!--edit text to enter course duration-->
<EditText
    android:id="@+id/idEdtCourseDuration"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:hint="Enter Course Duration" />
<!--edit text to display course tracks-->
<EditText
    android:id="@+id/idEdtCourseTracks"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:hint="Enter Course Tracks" />
<!--edit text for course description-->
<EditText
    android:id="@+id/idEdtCourseDescription"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
```

```
    android:layout_margin="10dp"
    android:hint="Enter Course Description" />
  <!--button for adding new course-->
  <Button
    android:id="@+id/idBtnAddCourse"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:text="Add Course"
    android:textAllCaps="false" />
</LinearLayout>
```

Code for MainActivity.java:

```
package com.example.dbdemo;

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 {

// creating variables for our edittext, button and dbhandler

  private EditText courseNameEdt, courseTracksEdt, courseDurationEdt, courseDescriptionEdt;

  private Button addCourseBtn;

  private DBHandler dbHandler;

  @Override

  protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);

// initializing all our variables.

        courseNameEdt = findViewById(R.id.idEdtCourseName);

        courseTracksEdt = findViewById(R.id.idEdtCourseTracks);

        courseDurationEdt = findViewById(R.id.idEdtCourseDuration);

        courseDescriptionEdt = findViewById(R.id.idEdtCourseDescription);

        addCourseBtn = findViewById(R.id.idBtnAddCourse);

// creating a new dbhandler class

// and passing our context to it.

        dbHandler = new DBHandler(MainActivity.this);

// below line is to add on click listener for our add course button.

        addCourseBtn.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

// below line is to get data from all edit text fields.

                String courseName = courseNameEdt.getText().toString();

                String courseTracks = courseTracksEdt.getText().toString();

                String courseDuration = courseDurationEdt.getText().toString();

                String courseDescription = courseDescriptionEdt.getText().toString();

// validating if the text fields are empty or not.

                if (courseName.isEmpty() && courseTracks.isEmpty() && courseDuration.isEmpty() &&
                        courseDescription.isEmpty()) {

                    Toast.makeText(MainActivity.this, "Please enter all the data..",
                            Toast.LENGTH_SHORT).show();

                    return;

                }

// on below line we are calling a method to add new

// course to sqlite data and pass all our values to it.

                dbHandler.addNewCourse(courseName, courseDuration, courseDescription, courseTracks);

// after adding the data we are displaying a toast message.
```

```
            Toast.makeText(MainActivity.this, "Course has been added.", Toast.LENGTH_SHORT).show();
            courseNameEdt.setText("");
            courseDurationEdt.setText("");
            courseTracksEdt.setText("");
            courseDescriptionEdt.setText("");
        }
    });
  }
}
```

Class DBHandler.java:

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

public class DBHandler extends SQLiteOpenHelper {

// creating a constant variables for our database.

// below variable is for our database name.

   private static final String DB_NAME = "coursedb";

// below int is our database version

   private static final int DB_VERSION = 1;

// below variable is for our table name.

   private static final String TABLE_NAME = "mycourses";

// below variable is for our id column.

   private static final String ID_COL = "id";

// below variable is for our course name column

   private static final String NAME_COL = "name";

// below variable id for our course duration column.

   private static final String DURATION_COL = "duration";

// below variable for our course description column.
```

```
    private static final String DESCRIPTION_COL = "description";
// below variable is for our course tracks column.
    private static final String TRACKS_COL = "tracks";
// creating a constructor for our database handler.
    public DBHandler(Context context) {
        super(context, DB_NAME, null, DB_VERSION);
    }
// below method is for creating a database by running a sqlite query
    @Override
    public void onCreate(SQLiteDatabase db) {
// on below line we are creating
// an sqlite query and we are
// setting our column names
// along with their data types.
        String query = "CREATE TABLE " + TABLE_NAME + " ("
                + ID_COL + " INTEGER PRIMARY KEY AUTOINCREMENT, "
                + NAME_COL + " TEXT,"
                + DURATION_COL + " TEXT,"
                + DESCRIPTION_COL + " TEXT,"
                + TRACKS_COL + " TEXT)";
// at last we are calling a exec sql
// method to execute above sql query
        db.execSQL(query);
    }
// this method is use to add new course to our sqlite database.
    public void addNewCourse(String courseName, String courseDuration, String
            courseDescription, String courseTracks) {
// on below line we are creating a variable for
// our sqlite database and calling writable method
```

```
// as we are writing data in our database.
        SQLiteDatabase db = this.getWritableDatabase();
// on below line we are creating a
// variable for content values.
        ContentValues values = new ContentValues();
// on below line we are passing all values
// along with its key and value pair.
        values.put(NAME_COL, courseName);
        values.put(DURATION_COL, courseDuration);
        values.put(DESCRIPTION_COL, courseDescription);
        values.put(TRACKS_COL, courseTracks);
// after adding all values we are passing
// content values to our table.
        db.insert(TABLE_NAME, null, values);
// at last we are closing our
// database after adding database.
        db.close();
    }
    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
// this method is called to check if the table exists already.
        db.execSQL("DROP TABLE IF EXISTS " + TABLE_NAME);
        onCreate(db);
    }
}
```