Experiment 3.4

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1. Aim:

Create an Android application for user registration that stores the user details in a database table.

2. Objective:

We are going to create a basic application with menu that is having multiple options. Note that we are going to implement this project using the Java language.

3. Steps:

Step1: Create a new project
Step2: Adding permissions to access the storage in the AndroidManifest.xml file
Step3: Working with the activity_main.xml file
Step4: Creating a new Java class for performing SQLite operations Step5: Go to the MainActivity.java file and refer to the following code. Below is the code for the MainActivity.java file.
Step6: Run

Code:

MainActivity.java package

```
com.example.exp10; import
android.os.Bundle; import
android.view.View; import
android.widget.Button;
```

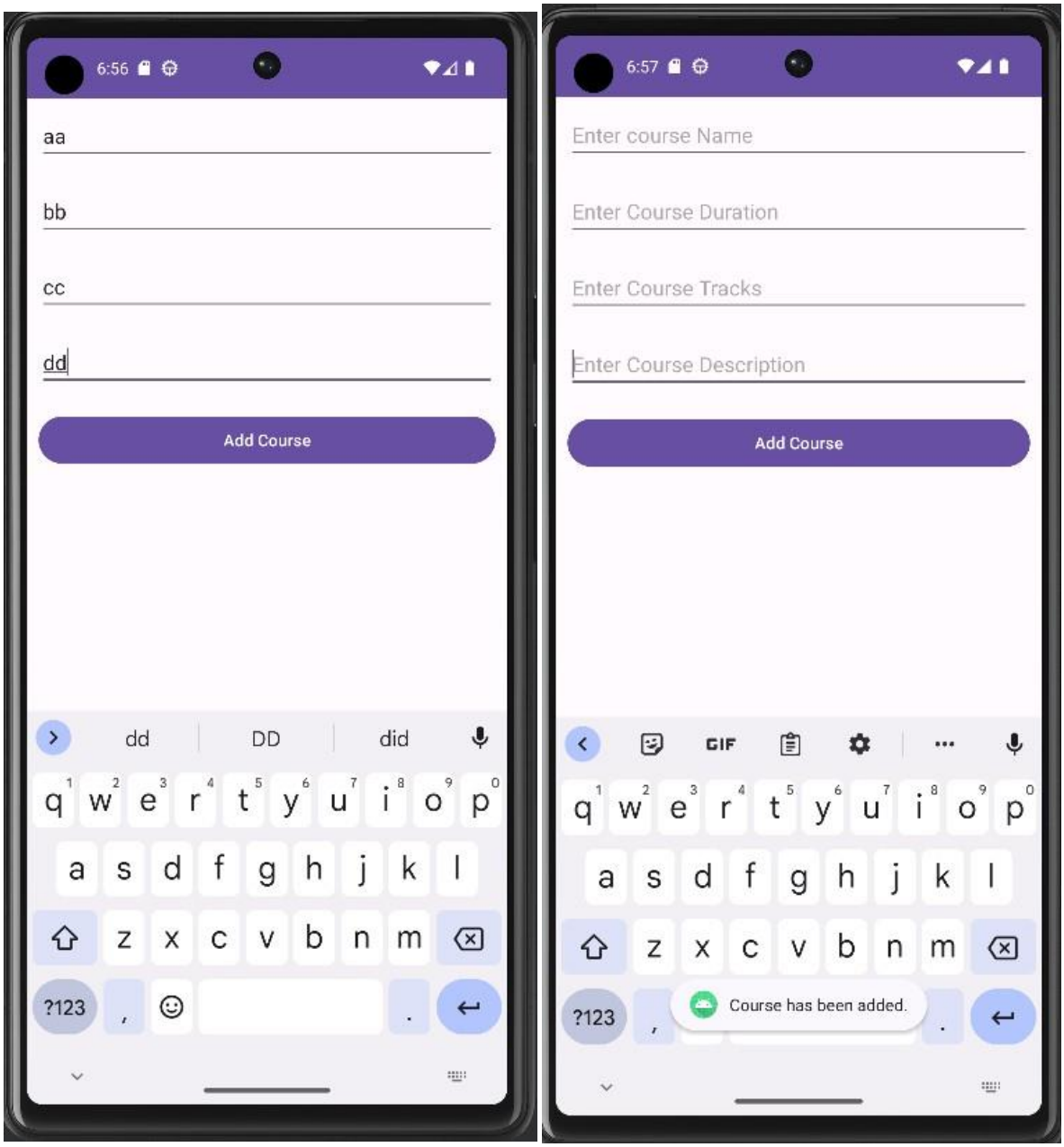
```
import android.widget.EditText;  import
android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

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);
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("");
              }
            });
        DBHandler.java package
com.example.exp10;
```

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

public class DBHandler extends SQLiteOpenHelper {
private static final String DB_NAME = "coursedb"; private
static final int DB_VERSION = 1;
private static final String TABLE_NAME = "mycourses";
private static final String ID_COL = "id"; private static final
String NAME_COL = "name"; private static final String
DURATION_COL = "duration"; private static final String
DESCRIPTION_COL = "description"; private static final String
TRACKS_COL = "tracks"; public DBHandler(Context context)
{
      super(context, DB_NAME, null, DB_VERSION);
   }
@Override
  public void onCreate(SQLiteDatabase db) { query =
"CREATE TABLE " + TABLE_NAME + " ("

            +     ID_COL     +     "     INTEGER     PRIMARY
AUTOINCREMENT, "
            + NAME_COL + " TEXT,"

            + DURATION_COL + " TEXT,"

            + DESCRIPTION_COL + " TEXT,"

            + TRACKS_COL + " TEXT)"; db.execSQL(query);
   }
```

```
public void addNewCourse(String courseName, String courseDuration,
String courseDescription, String courseTracks) {
SQLiteDatabase db = this.getWritableDatabase();
ContentValues values = new ContentValues();
values.put(NAME_COL, courseName);

        values.put(DURATION_COL, courseDuration);

        values.put(DESCRIPTION_COL, courseDescription);

        values.put(TRACKS_COL, courseTracks);
db.insert(TABLE_NAME, null, values);
db.close();}     @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int
newVersion) {
db.execSQL("DROP TABLE IF EXISTS " + TABLE_NAME);
onCreate(db);
}
}

AndroidManifest.xml <uses-permission
android:name="android.permission.READ_EXTERNAL_STORAGE" />
```

4. Output:


6:56
aa
bb
cc
dd
Add Course
6:57
Enter course Name
Enter Course Duration
Enter Course Tracks
Enter Course Description
Add Course
Course has been added.