Experiment10

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SubjectName:MobileApplicationDevelopmentLab **SubjectCode:20CSP-356**

1. Aim:

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

2. SystemRequirements:
   - MicrosoftWindows7/8/10(32-bitor64-bit)
   - 4 GB RAM minimum, 8 GB RAM recommended (plus 1 GB for the AndroidEmulator)
   - 2GBofavailablediskspaceminimum,4GBrecommended(500MBforIDEplus 1.5GBforAndroidSDKandemulatorsystemimage)
   - 1280x800minimumscreenresolution
   - JavaJDK5orlaterversion
   - JavaRuntimeEnvironment(JRE)6AndroidStudio

3. Code:

   1. <u>MainActivity.java</u>

```
package android.example.exp_10;
importandroid.os.Bundle;

importandroid.view.View;

importandroid.widget.Button;

importandroid.widget.EditText;
```

```java
importandroid.widget.Toast;

importandroidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {


    // creating variables for our edittext, button and dbhandler

private Button addCourseBtn;

privateDBHandlerdbHandler;

    @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() {
```

```java
    @Override

public void onClick(View v) {
```

2. <u>DBHandler.java</u>

```java
 package android.example.exp_10;
importandroid.content.ContentValues;
importandroid.content.Context;
importandroid.database.sqlite.SQLiteDatabase;
importandroid.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";

String query = "CREATE TABLE " + TABLE_NAME + " ("

        + ID_COL + " INTEGER PRIMARY KEY AUTOINCREMENT, "

        + NAME_COL + " TEXT,"

        + DURATION_COL + " TEXT,"

        + DESCRIPTION_COL + " TEXT,"
```

```java
        + TRACKS_COL + " TEXT)";

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.

SQLiteDatabasedb = 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(SQLiteDatabasedb, intoldVersion, intnewVersion) {
```

3. **Actuivity_Main.xml**

```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
```

```xml
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>

4. OUTPUT: