Experiment 10

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Semester: 6th
Subject Name: MAD Lab
Subject Code: 20CSP-356

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

Source code:

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">
    <EditText
        android:id="@+id/idEdtCourseName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:hint="@string/enter_course_name" />
    <EditText
```

```
        android:id="@+id/idEdtCourseDuration"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:hint="@string/enter_course_duration" />
    <EditText
        android:id="@+id/idEdtCourseTracks"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:hint="@string/enter_course_tracks" />
    <EditText
        android:id="@+id/idEdtCourseDescription"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:hint="@string/enter_course_description" />
    <Button
        android:id="@+id/idBtnAddCourse"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:text="@string/add_course"
        android:textAllCaps="false" />
</LinearLayout>
```

MainActivity.java=

```
package com.example.exp_9;
import androidx.appcompat.app.ActionBar;
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;
import androidx.appcompat.app.AppCompatActivity;
import java.util.Objects;
public class MainActivity extends AppCompatActivity {
    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);
        ActionBar act = getSupportActionBar();
        Objects.requireNonNull(act).setTitle("Exp 10");
        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);
```

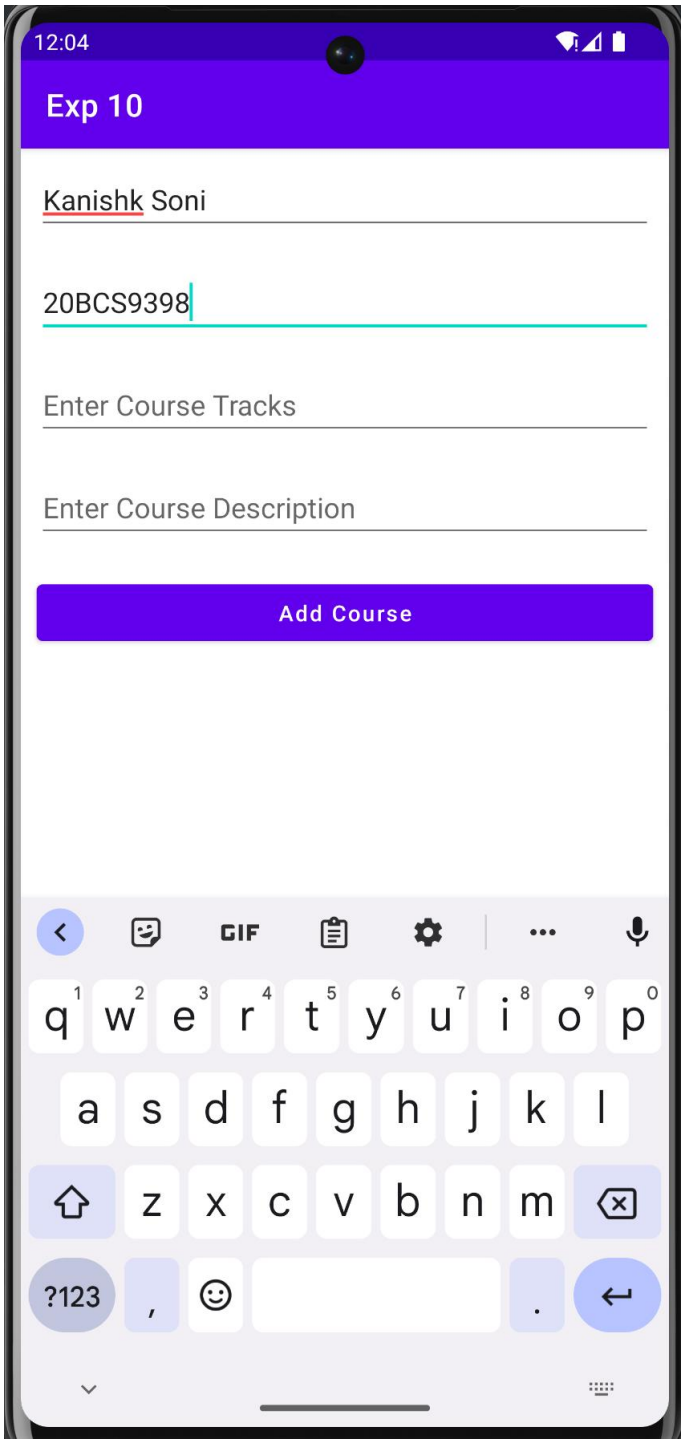
```
        dbHandler = new DBHandler(MainActivity.this);
        addCourseBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String courseName = courseNameEdt.getText().toString();
                String courseTracks = courseTracksEdt.getText().toString();
                String courseDuration =
                        courseDurationEdt.getText().toString();
                String courseDescription =
                        courseDescriptionEdt.getText().toString();
                if (courseName.isEmpty() && courseTracks.isEmpty() &&
                        courseDuration.isEmpty() && courseDescription.isEmpty()) {
                    Toast.makeText(MainActivity.this, "Please enter all the data..",
Toast.LENGTH_SHORT).show();
                    return;
                }
                dbHandler.addNewCourse(courseName, courseDuration,
                        courseDescription, courseTracks);
                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.exp_9;
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) {
        String query = "CREATE TABLE " + TABLE_NAME + " ("
                + ID_COL + " INTEGER PRIMARY KEY 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);
    }
}
```

Output:


12:04
Exp 10
Kanishk Soni
20BCS9398
Enter Course Tracks
Enter Course Description
Add Course

Database Entries from Database Inspector: