# MOBILE PROGRAMMING LAB

## PRACTICAL 9

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## PRACTICAL 8

## AIM:-

Problem Statement: Design an activity for STUDENT REGISTRATION FOR SCHOLARSHIP. Design a form to accept roll number, name and marks of the student. On click of REGISTER button create/open existing database, and store the information entered by student in the student table. Also place a RESET button to reset all fields and a VIEW ALL APPLICATIONS button to display all rows of the student table.

## activity_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"
    android:padding="16dp"
    tools:context=".MainActivity">
    <EditText
        android:id="@+id/editRollNumber"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Roll Number"/>
    <EditText
        android:id="@+id/editName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Name"/>
    <EditText
        android:id="@+id/editMarks"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Marks"/>
    <Button
        android:id="@+id/btnRegister"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="REGISTER"/>
    <Button
        android:id="@+id/btnReset"
```

```xml
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="RESET"/>
    <Button
        android:id="@+id/btnViewApplications"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="VIEW ALL APPLICATIONS"/>
</LinearLayout>
```

## MainActivity.java

```java
package com.example.practical9;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.content.ContentValues;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
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 {
    private EditText editRollNumber, editName, editMarks;
    private DatabaseHelper databaseHelper;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        editRollNumber = findViewById(R.id.editRollNumber);
        editName = findViewById(R.id.editName);
        editMarks = findViewById(R.id.editMarks);
        databaseHelper = new DatabaseHelper(this);
        Button btnRegister = findViewById(R.id.btnRegister);
        btnRegister.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                registerStudent();
            }
        });
        Button btnReset = findViewById(R.id.btnReset);
        btnReset.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                resetFields();
            }
        });
        Button btnViewApplications =
                findViewById(R.id.btnViewApplications);
        btnViewApplications.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                viewAllApplications();
            }
```

```java
        });
    }
    private void registerStudent() {
        SQLiteDatabase db = databaseHelper.getWritableDatabase();
        ContentValues values = new ContentValues();
        values.put("roll_number", editRollNumber.getText().toString());
        values.put("name", editName.getText().toString());
        values.put("marks",
                Integer.parseInt(editMarks.getText().toString()));
        long rowId = db.insert("student", null, values);
        if (rowId != -1) {
            Toast.makeText(this, "Student registered successfully",
                    Toast.LENGTH_SHORT).show();
            resetFields();
        } else {
            Toast.makeText(this, "Failed to register student",
                    Toast.LENGTH_SHORT).show();
        }
        db.close();
    }
    private void resetFields() {
        editRollNumber.setText("");
        editName.setText("");
        editMarks.setText("");
    }
    private void viewAllApplications() {
        SQLiteDatabase db = databaseHelper.getReadableDatabase();
        Cursor cursor = db.rawQuery("SELECT * FROM student", null);
        if (cursor.getCount() > 0) {
            StringBuilder stringBuilder = new StringBuilder();
            while (cursor.moveToNext()) {
                stringBuilder.append("ID:
").append(cursor.getInt(0)).append("\n");
                        stringBuilder.append("Roll Number:
").append(cursor.getString(1)).append("\n");
                                stringBuilder.append("Name:
").append(cursor.getString(2)).append("\n");
                                        stringBuilder.append("Marks:
").append(cursor.getInt(3)).append("\n\n");
            }
            Toast.makeText(this, stringBuilder.toString(),
Toast.LENGTH_LONG).show();
        } else {
            Toast.makeText(this, "No applications found",
Toast.LENGTH_SHORT).show();
        }
        cursor.close();
        db.close();
    }
}
```

## DatabseHelper.java

```java
package com.example.practical9;
import android.content.Context;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
public class DatabaseHelper extends SQLiteOpenHelper {
    private static final String DATABASE_NAME = "student_db";
```
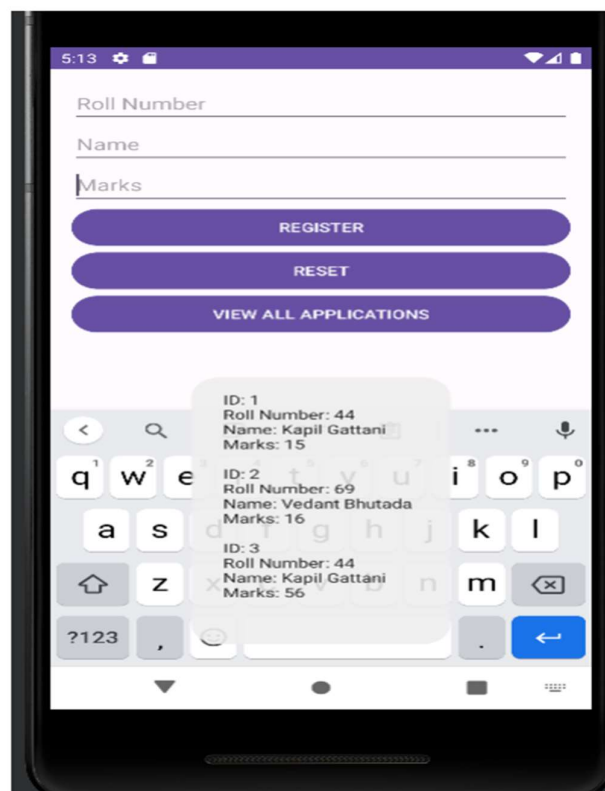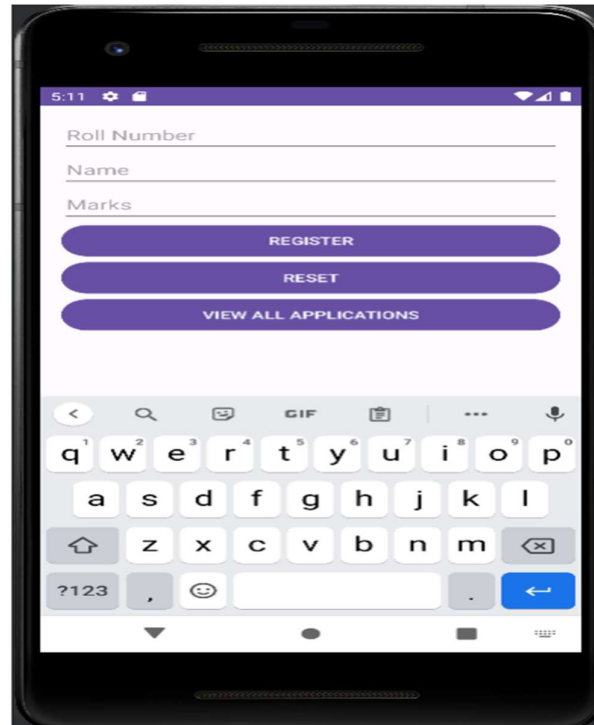
```java
    private static final int DATABASE_VERSION = 1;
    private static final String CREATE_TABLE_STUDENT =
            "CREATE TABLE student (" +
                    "id INTEGER PRIMARY KEY AUTOINCREMENT," +
                    "roll_number TEXT," +
                    "name TEXT," +
                    "marks INTEGER);";
    public DatabaseHelper(Context context) {
        super(context, DATABASE_NAME, null, DATABASE_VERSION);
    }
    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL(CREATE_TABLE_STUDENT);
    }
    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int
newVersion) {
        // Upgrade the database if needed
    }
}
```

**Output:**

**Conclusion:** In this practical we successfully implemented an activity for STUDENT REGISTRATION FOR SCHOLARSHIP using SqlLite.