**//JAVA Code for 4th Termwork**

**import android.app.Activity;**

**import android.app.AlertDialog.Builder;**

**import android.content.Context;**

**import android.database.Cursor;**

**import android.database.sqlite.SQLiteDatabase;**

**import android.os.Bundle;**

**import android.view.View;**

**import android.view.View.OnClickListener;**

**import android.widget.Button;**

**import android.widget.EditText;**

**public class MainActivity extends Activity implements OnClickListener**

**{**

**EditText Rollno,Name,Marks;**

**Button Insert,Delete,Update,View,ViewAll;**

**SQLiteDatabase db;**

**/\*\* Called when the activity is first created. \*/**

**@Override**

**public void onCreate(Bundle savedInstanceState)**

**{**

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**Rollno=(EditText)findViewById(R.id.Rollno);**

**Name=(EditText)findViewById(R.id.Name);**

**Marks=(EditText)findViewById(R.id.Marks);**

**Insert=(Button)findViewById(R.id.Insert);**

**Delete=(Button)findViewById(R.id.Delete);**

**Update=(Button)findViewById(R.id.Update);**

**View=(Button)findViewById(R.id.View);**

**ViewAll=(Button)findViewById(R.id.ViewAll);**

**Insert.setOnClickListener(this);**

**Delete.setOnClickListener(this);**

**Update.setOnClickListener(this);**

**View.setOnClickListener(this);**

**ViewAll.setOnClickListener(this);**

**// Creating database and table**

**db=openOrCreateDatabase("StudentDB", Context.MODE\_PRIVATE, null);**

**db.execSQL("CREATE TABLE IF NOT EXISTS student(rollno VARCHAR,name VARCHAR,marks VARCHAR);");**

**}**

**public void onClick(View view)**

**{**

**// Inserting a record to the Student table**

**if(view==Insert)**

**{**

**// Checking for empty fields**

**if(Rollno.getText().toString().trim().length()==0||**

**Name.getText().toString().trim().length()==0||**

**Marks.getText().toString().trim().length()==0)**

**{**

**showMessage("Error", "Please enter all values");**

**return;**

**}**

**db.execSQL("INSERT INTO student VALUES('"+Rollno.getText()+"','"+Name.getText()+**

**"','"+Marks.getText()+"');");**

**showMessage("Success", "Record added");**

**clearText();**

**}**

**// Deleting a record from the Student table**

**if(view==Delete)**

**{**

**// Checking for empty roll number**

**if(Rollno.getText().toString().trim().length()==0)**

**{**

**showMessage("Error", "Please enter Rollno");**

**return;**

**}**

**Cursor c=db.rawQuery("SELECT \* FROM student WHERE rollno='"+Rollno.getText()+"'", null);**

**if(c.moveToFirst())**

**{**

**db.execSQL("DELETE FROM student WHERE rollno='"+Rollno.getText()+"'");**

**showMessage("Success", "Record Deleted");**

**}**

**else**

**{**

**showMessage("Error", "Invalid Rollno");**

**}**

**clearText();**

**}**

**// Updating a record in the Student table**

**if(view==Update)**

**{**

**// Checking for empty roll number**

**if(Rollno.getText().toString().trim().length()==0)**

**{**

**showMessage("Error", "Please enter Rollno");**

**return;**

**}**

**Cursor c=db.rawQuery("SELECT \* FROM student WHERE rollno='"+Rollno.getText()+"'", null);**

**if(c.moveToFirst()) {**

**db.execSQL("UPDATE student SET name='" + Name.getText() + "',marks='" + Marks.getText() +**

**"' WHERE rollno='"+Rollno.getText()+"'");**

**showMessage("Success", "Record Modified");**

**}**

**else {**

**showMessage("Error", "Invalid Rollno");**

**}**

**clearText();**

**}**

**// Display a record from the Student table**

**if(view==View)**

**{**

**// Checking for empty roll number**

**if(Rollno.getText().toString().trim().length()==0)**

**{**

**showMessage("Error", "Please enter Rollno");**

**return;**

**}**

**Cursor c=db.rawQuery("SELECT \* FROM student WHERE rollno='"+Rollno.getText()+"'", null);**

**if(c.moveToFirst())**

**{**

**Name.setText(c.getString(1));**

**Marks.setText(c.getString(2));**

**}**

**else**

**{**

**showMessage("Error", "Invalid Rollno");**

**clearText();**

**}**

**}**

**// Displaying all the records**

**if(view==ViewAll)**

**{**

**Cursor c=db.rawQuery("SELECT \* FROM student", null);**

**if(c.getCount()==0)**

**{**

**showMessage("Error", "No records found");**

**return;**

**}**

**StringBuffer buffer=new StringBuffer();**

**while(c.moveToNext())**

**{**

**buffer.append("Rollno: "+c.getString(0)+"\n");**

**buffer.append("Name: "+c.getString(1)+"\n");**

**buffer.append("Marks: "+c.getString(2)+"\n\n");**

**}**

**showMessage("Student Details", buffer.toString());**

**}**

**}**

**public void showMessage(String title,String message)**

**{**

**Builder builder=new Builder(this);**

**builder.setCancelable(true);**

**builder.setTitle(title);**

**builder.setMessage(message);**

**builder.show();**

**}**

**public void clearText()**

**{**

**Rollno.setText("");**

**Name.setText("");**

**Marks.setText("");**

**Rollno.requestFocus();**

**}**

**}**