

## Assignment:-11

**Q.11 Create an application to make insert ,update,delete and retrieve operation on database?**

**Ans :- The Code for the above program**

### MainActivity.java

```
package com.example.rakesh.database;
import android.annotation.SuppressLint;
import android.content.ContentValues;
import android.content.Intent;
import android.database.Cursor;
import android.database.SQLException;
import android.database.sqlite.SQLiteDatabase;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    SQLiteDatabase db;
    private Button save,upd,del,search;
    private EditText stud_id,stud_name;
    @SuppressWarnings("WrongConstant")
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        save=(Button)findViewById(R.id.button);
        upd=(Button)findViewById(R.id.update_Btn);
        del=(Button)findViewById(R.id.btnDel);
        stud_id=(EditText)findViewById(R.id.editText);
        stud_name=(EditText)findViewById(R.id.editText2);
        search = (Button)findViewById(R.id.btnSearch);
        try{
            db=openOrCreateDatabase("StudentDB",
                SQLiteDatabase.CREATE_IF_NECESSARY,null);
            db.execSQL("Create Table register(id text,name text)");
        }catch(SQLException e)
        {
            Toast.makeText(getApplicationContext(),e.toString(),2000).show();
        }
        save.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if(stud_id.getText().toString().equals("")
                    || stud_name.getText().toString().equals(""))
                {
                    Toast.makeText(getApplicationContext(), "Both Values Are Mandatory", 2000).show();
                }
            }
        })
    }
}
```

```

else{
    String student_id = stud_id.getText().toString();
    String student_name = stud_name.getText().toString();
    ContentValues values=new ContentValues();
    values.put("id", student_id);
    values.put("name", student_name);
    if((db.insert("register", null, values))!=-1)
    {
        Toast.makeText(getApplicationContext(), "Record Successfully Inserted", 2000).show();
    }
    else
    {
        Toast.makeText(getApplicationContext(), "Insert Error", 2000).show();
    }
    stud_name.setText("");
    stud_id.setText("");
    Cursor c=db.rawQuery("SELECT * FROM register",null);
    c.moveToFirst();
    while(!c.isAfterLast())
    {
        Toast.makeText(getApplicationContext(),c.getString(0)+ " "+c.getString(1),1000).show();
        c.moveToNext();
    }
    c.close();
}
});
search.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Cursor c=db.rawQuery("select * from register WHERE id='"+ stud_id.getText()+"'",null);
        c.moveToFirst();
        while(!c.isAfterLast())
        {
            Toast.makeText(getApplicationContext(),c.getString(0)+ " "+c.getString(1),1000).show();
            stud_name.setText(c.getString(1));
            c.moveToNext();
        }
        c.close();
    }
});
upd.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        // db.execSQL("delete from register");

```

```
db.execSQL("UPDATE register SET name='"+stud_name.getText().toString()+" WHERE id
='"+stud_id.getText().toString()+""); db.execSQL("UPDATE register SET name='"+
stud_name.getText().toString()+" WHERE id='"+stud_id.getText().toString()+"");
```

```
    Toast.makeText(getApplicationContext(),"Record Updated Sucessfully",500).show();
}
});

del.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        db.execSQL("delete from register where id='"+stud_id.getText()+"");
        Toast.makeText(getApplicationContext(),"Record Deleted Sucessfully",500).show();
    }
});
}
```

#### Activity\_main.xml :

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <EditText
        android:id="@+id/editText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="77dp"
        android:ems="10"
        android:hint="Enter Student Id"
        android:inputType="textPersonName" />
    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="146dp"
        android:ems="10"
        android:hint="Enter Student Name"
```

```
        android:inputType="textPersonName" />
    <Button
        android:id="@+id/button"
        android:layout_width="198dp"
        android:layout_height="wrap_content"
        android:layout_alignEnd="@+id/editText"
        android:layout_alignParentTop="true"
        android:layout_marginTop="245dp"
        android:background="#fbb553"
        android:text="Save" />
    <Button
        android:id="@+id/update_Btn"
        android:layout_width="125dp"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_alignTop="@+id/btnDel"
        android:layout_marginStart="69dp"
        android:background="#a58ff5"
        android:text="Update" />
    <Button
        android:id="@+id/btnDel"
        android:layout_width="111dp"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_alignParentEnd="true"
        android:layout_marginBottom="106dp"
        android:layout_marginEnd="46dp"
        android:background="#8f9ef5"
        android:text="Delete" />
    <Button
        android:id="@+id/btnSearch"
        android:layout_width="194dp"
        android:layout_height="wrap_content"
        android:layout_alignEnd="@+id/editText"
        android:layout_alignParentBottom="true"
        android:layout_marginBottom="203dp"
        android:background="@color/colorPrimaryDark"
        android:text="Search" />
</RelativeLayout>
```

**OUTPUT :**

The image displays four sequential screenshots of a web application interface, each titled "Database" in a pink header. The interface includes input fields for "Enter Student Id" and "Enter Student Name", and buttons for "SAVE", "SEARCH", "UPDATE", and "DELETE".

- Top Left Screenshot:** Shows the initial state with empty input fields. A message at the bottom reads "Record Successfully Inserted".
- Top Right Screenshot:** Shows the "Enter Student Id" field containing the value "2".
- Bottom Left Screenshot:** Shows the "Enter Student Id" field containing "3" and the "Enter Student Name" field containing "Rajan". A message at the bottom reads "Record Updated Sucessfully".
- Bottom Right Screenshot:** Shows the "Enter Student Id" field containing "4" and the "Enter Student Name" field containing "Jenish". A message at the bottom reads "Record Deleted Sucessfully".