Practical No.: 15

Aim: Database connection to insert record into Database

Source Code:

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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">

    <Button
        android:id="@+id/btnshow"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/show"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.73"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/btninsert"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/insert"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toStartOf="@+id/btnshow"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/gotname"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="@string/enter_your_name"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/btninsert"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        android:autofillHints="" />

    <EditText
        android:id="@+id/gothouse"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
```

```
        android:inputType="textPersonName"
        android:hint="@string/house_name"
        app:layout_constraintBottom_toTopOf="@+id/btninsert"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/gotname"
        app:layout_constraintVertical_bias="0.271" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```
package com.technoboy.practical_no_15;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
import android.content.DialogInterface;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    dbhelper db;
    EditText name,house;
    Button show,add;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        db=new dbhelper(this);
        name=findViewById(R.id.gotname);
        house=findViewById(R.id.gothouse);
        show=findViewById(R.id.btnshow);
        add=findViewById(R.id.btninsert);

        add.setOnClickListener(
                new View.OnClickListener() {
                    @Override
                    public void onClick(View v) {
                      boolean result = db.add(name.getText().toString().trim(), house.getText().toString());
                        if(result==true)
                        {
                            message("Success","Data Inserted Successfully");
                        }
                        else
                        {
                            message("Error","Unable to Insert Data");
                        }
                    }
```

```
        }
    );

    show.setOnClickListener(
        new View.OnClickListener() {
          @Override
          public void onClick(View v) {
            Cursor data=db.show();
            if(data.getCount()==0)
            {
              message("Error","No data found in Database");
            }
            StringBuffer bufferdata=new StringBuffer();
            while (data.moveToNext())
            {
              bufferdata.append(data.getString(0)+" --> "+data.getString(1)+" -->
"+data.getString(2)+"\n");
            }
            message("Data",bufferdata.toString());
          }
        }
    );
  }

  public void message(String Title,String Message)
  {
    AlertDialog.Builder builder=new AlertDialog.Builder(this);
    builder.setCancelable(true)
        .setTitle(Title)
        .setMessage(Message)
        .setPositiveButton("Ok", new DialogInterface.OnClickListener() {
          @Override
          public void onClick(DialogInterface dialog, int which) {
            dialog.cancel();
          }
        });

    AlertDialog alertDialog=builder.create();
    alertDialog.show();
  }
}
```

dbhelper.java

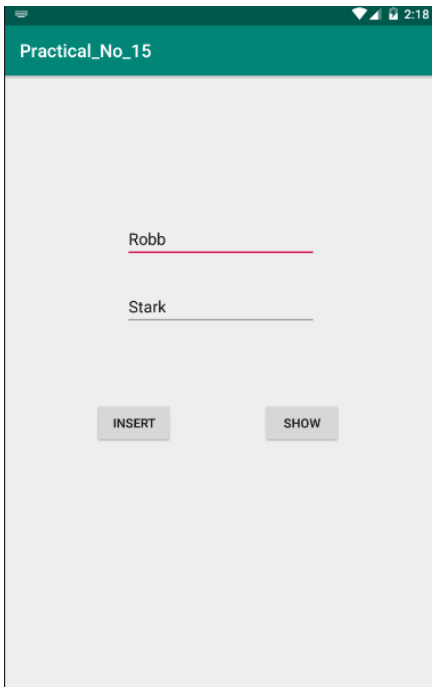
```
package com.technoboy.practical_no_15;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import androidx.annotation.Nullable;
import java.nio.DoubleBuffer;
```

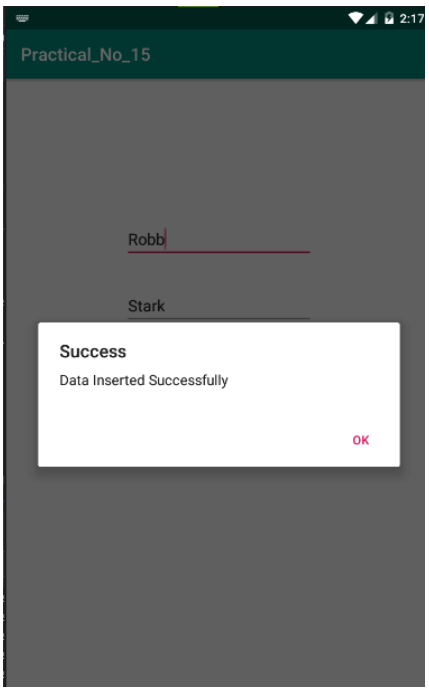
```
public class dbhelper extends SQLiteOpenHelper {

    private static final String Db_Name="got.db";
    private static final String Tb_Name="got";
    private static final String Col1="Id";
    private static final String Col2="Name";
    private static final String Col3="House";
    SQLiteDatabase db;

    public dbhelper(@Nullable Context context) {
        super(context, Db_Name, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("CREATE TABLE "+ Tb_Name + "("+Col1+" INTEGER PRIMARY KEY
AUTOINCREMENT,"+Col2+" TEXT,"+Col3+" TEXT)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        db.execSQL("DROP TABLE IF EXISTS "+Tb_Name);
    }
    public boolean add(String Name,String House)
    {
        db=this.getWritableDatabase();
        ContentValues data=new ContentValues();
        data.put(Col2,Name);
        data.put(Col3,House);
        long result = db.insert(Tb_Name, null, data);
        if(result==-1)
        {
            return false;
        }
        else
        {
            return true;
        }
    }
    public Cursor show()
    {
        db=this.getReadableDatabase();
        Cursor data=db.rawQuery("SELECT * FROM "+Tb_Name,null);
        return data;
    }
}
```

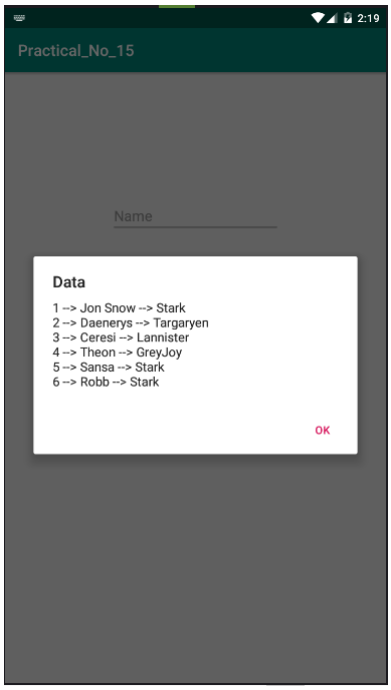
Strings.xml

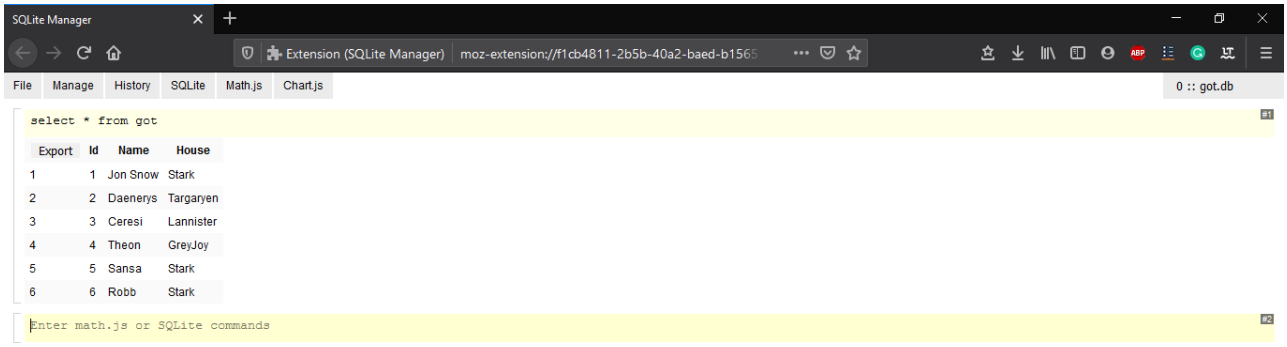
```
<resources>
    <string name="app_name">Practical_No_15</string>
    <string name="insert">Insert</string>
    <string name="show">Show</string>
    <string name="enter_your_name">Name</string>
    <string name="house_name">House Name</string>
</resources>
```

Output:


2:18
Practical_No_15
Robb
Stark
INSERT
SHOW


2:17
Practical_No_15
Robb
Stark
Success
Data Inserted Successfully
OK


2:19
Practical_No_15
Name
Data
1 --> Jon Snow --> Stark
2 --> Daenerys --> Targaryen
3 --> Ceresi --> Lannister
4 --> Theon --> GreyJoy
5 --> Sansa --> Stark
6 --> Robb --> Stark
OK


SQLite Manager
Extension (SQLite Manager)
moz-extension://f1cb4811-2b5b-40a2-baed-b1565
File
Manage
History
SQLite
Math.js
Chart.js
0 :: got.db
select * from got
Export Id Name House
1 1 Jon Snow Stark
2 2 Daenerys Targaryen
3 3 Ceresi Lannister
4 4 Theon GreyJoy
5 5 Sansa Stark
6 6 Robb Stark
Enter math.js or SQLite commands