Program no: 20

Aim: Program to Create database using SQLite and perform INSERT and SELECT

XML Code:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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"
   android:layout_gravity="center"
   android:background="#7253b0"
   android:gravity="center"
   android:orientation="vertical"
   tools:context=".MainActivity">

   <androidx.cardview.widget.CardView
      android:layout_width="300dp"
      android:layout_height="wrap_content"
      android:layout_gravity="center"
      app:cardCornerRadius="15dp">

      <LinearLayout
         android:layout_width="match_parent"
         android:layout_height="wrap_content"
         android:layout_gravity="center"
         android:orientation="vertical">
```

```
<TextView
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:layout_gravity="center"
   android:layout_marginTop="7dp"
   android:layout_marginBottom="10dp"
   android:text="SQlite"
   android:textColor="#3F51B5"
   android:textSize="40dp"
   android:textStyle="bold" />

<EditText
   android:id="@+id/uid"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:layout_margin="20dp"
   android:hint="id" />

<EditText
   android:id="@+id/name"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:layout_margin="20dp"
   android:hint="name"/>
<EditText
   android:id="@+id/email"
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:layout_margin="20dp"
   android:hint="amail"/>
```

```
        <Button
            android:id="@+id/insert"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="20dp"
            android:text="Insert" />

        <Button
            android:id="@+id/view"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="20dp"
            android:text="view" />


    </LinearLayout>

  </androidx.cardview.widget.CardView>


</LinearLayout>
```

Java Code:

```
package com.example.adaptor;

import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
```

```
import android.widget.Toast;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

   @Override
   protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_main);
      DBHelper DB = new DBHelper(this);
      EditText name = findViewById(R.id.name);
      EditText id = findViewById(R.id.uid);
      EditText email = findViewById(R.id.email);
      Button insert = findViewById(R.id.insert
      Button view = findViewById(R.id.view);
      insert.setOnClickListener(new View.OnClickListener() {
         @Override
         public void onClick(View v) {
            String nametxt = name.getText().toString();
            String idtxt = id.getText().toString();
            String emailtxt = email.getText().toString();
            Boolean checkinsertdata = DB.insertuserdata(idtxt, nametxt,
emailtxt);
            if (checkinsertdata) {
               Toast.makeText(MainActivity.this, "Data inserted",
Toast.LENGTH_LONG).show();
            }
         }
      });
```

```
        view.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Cursor res = DB.getdata();
                if (res.getCount() == 0) {
                    Toast.makeText(MainActivity.this, "No entry Exist",
Toast.LENGTH_SHORT).show();
                } else {
                    StringBuffer buffer = new StringBuffer();
                    while (res.moveToNext()) {
                        buffer.append("id : " + res.getString(0) + "\n");
                        buffer.append("Name : " + res.getString(1) + "\n");
                        buffer.append("email : " + res.getString(2) + "\n");
                    }
                    AlertDialog.Builder builder = new
AlertDialog.Builder(MainActivity.this);
                    builder.setCancelable(true);
                    builder.setTitle("User Entries");
                    builder.setMessage(buffer.toString());
                    builder.show();
                }
            }
        });


    }
}
```

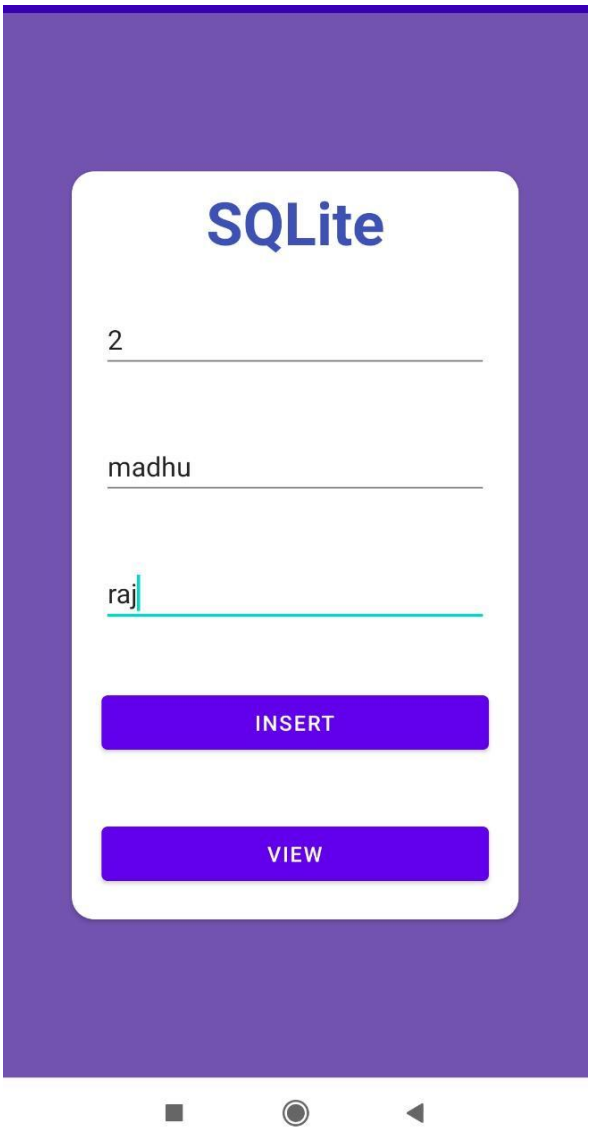
DBHelper code:

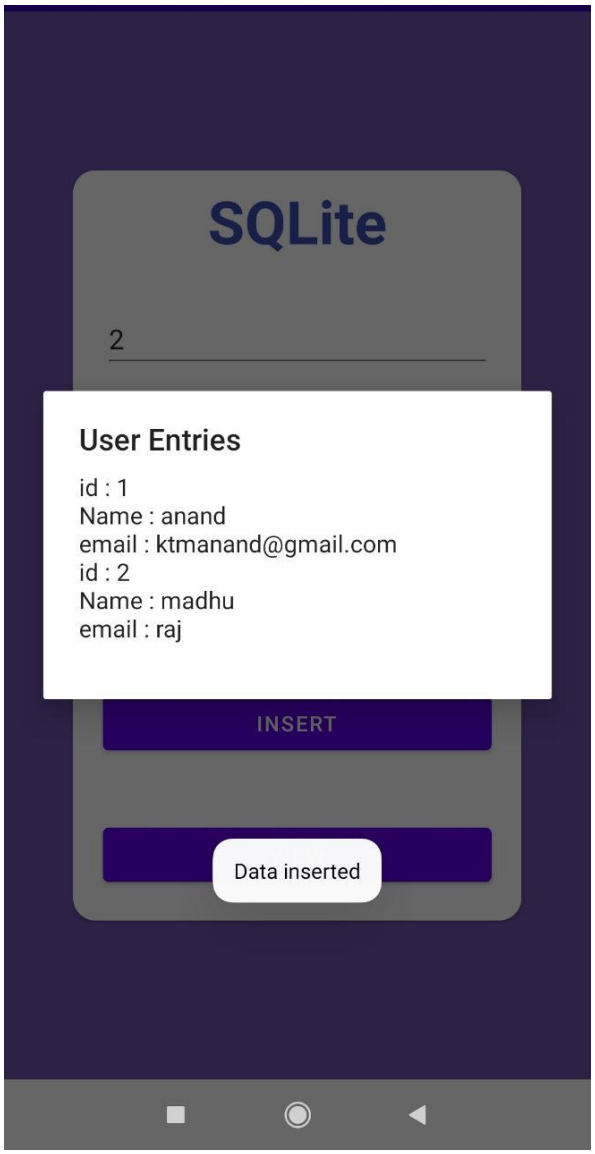
```
package com.example.adaptor;
import android.content.ContentValues;
```

```
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

public class DBHelper extends SQLiteOpenHelper {
   public DBHelper(Context context) {
      super(context, "Userdata.db", null, 1);
   }

   @Override
   public void onCreate(SQLiteDatabase DB) {
      DB.execSQL("create Table Userdetails(id TEXT primary key,name
text,email text)");

   }

   @Override
   public void onUpgrade(SQLiteDatabase DB, int oldVersion, int
newVersion) {
      DB.execSQL("DROP TABLE if exists Userdetails");

   }

   public Boolean insertuserdata(String id, String name, String email) {
      SQLiteDatabase DB = this.getWritableDatabase();
      ContentValues contentValues = new ContentValues();
      contentValues.put("id", id);
      contentValues.put("name", name);
      contentValues.put("email", email);
      long result = DB.insert("Userdetails", null, contentValues);
      if (result == -1) {
```

```
            return false;
        } else {
            return true;
        }
    }

    public Cursor getdata() {
        SQLiteDatabase DB = this.getWritableDatabase();
        Cursor cursor = DB.rawQuery("Select * from Userdetails", null);
        return cursor;
    }


}
```

Output


SQLite
2
madhu
raj
INSERT
VIEW


SQLite
2
User Entries
id : 1
Name : anand
email : ktmanand@gmail.com
id : 2
Name : madhu
email : raj
INSERT
Data inserted

Program no: 21

Aim: Program to Perform UPDATE and DELETE on SQLite database

XML Code:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:layout_gravity="center"
    android:background="#7253b0"
    android:gravity="center"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <androidx.cardview.widget.CardView
        android:layout_width="300dp"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        app:cardCornerRadius="15dp">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:orientation="vertical">

            <TextView
                android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_marginTop="7dp"
    android:layout_marginBottom="10dp"
    android:text="SQLite"
    android:textColor="#3F51B5"
    android:textSize="40dp"
    android:textStyle="bold" />

<EditText
    android:id="@+id/uid"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:hint="id" />

<EditText
    android:id="@+id/name"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:hint="name"/>
<EditText
    android:id="@+id/email"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:hint="amail"/>



<Button
    android:id="@+id/insert"
    android:layout_width="match_parent"
```

```
            android:layout_height="wrap_content"
            android:layout_margin="20dp"
            android:text="Insert" />
        <Button
            android:id="@+id/update"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="20dp"
            android:text="update" />
        <Button
            android:id="@+id/delete"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:text="delete" />
        <Button
            android:id="@+id/view"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:text="view" />


    </LinearLayout>

  </androidx.cardview.widget.CardView>

</LinearLayout>
```

Java code:

```
package com.example.adaptor;


import android.database.Cursor;
```

```
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        DBHelper DB = new DBHelper(this);
        EditText name = findViewById(R.id.name);
        EditText id = findViewById(R.id.uid);
        EditText email = findViewById(R.id.email);
        Button insert = findViewById(R.id.insert);
        Button update = findViewById(R.id.update);
        Button delete = findViewById(R.id.delete);
```

```
    Button view = findViewById(R.id.view);
    insert.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            String nametxt = name.getText().toString();
            String idtxt = id.getText().toString();
            String emailtxt = email.getText().toString();
            Boolean checkinsertdata = DB.insertuserdata(idtxt, nametxt, emailtxt);
            if (checkinsertdata) {
                Toast.makeText(MainActivity.this, "Data inserted",
Toast.LENGTH_LONG).show();
            }
            else {
                Toast.makeText(MainActivity.this, "Nothing Happened",
Toast.LENGTH_SHORT).show();
            }
        }
    });
    update.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            String nametxt = name.getText().toString();
            String idtxt = id.getText().toString();
```

```
            String emailtxt = email.getText().toString();
            Boolean checkinsertdata = DB.updatedata(idtxt, nametxt, emailtxt);
            if (checkinsertdata) {
                Toast.makeText(MainActivity.this, "Data updated",
Toast.LENGTH_LONG).show();
            }
            else {
                Toast.makeText(MainActivity.this, "Nothing Happened",
Toast.LENGTH_SHORT).show();
            }
        }
    });
    delete.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            String nametxt = name.getText().toString();
            String idtxt = id.getText().toString();
            String emailtxt = email.getText().toString();
            Boolean checkinsertdata = DB.deletedata(idtxt);
            if (checkinsertdata) {
                Toast.makeText(MainActivity.this, "Data deleted",
Toast.LENGTH_LONG).show();
            }
```

```
            else {
                Toast.makeText(MainActivity.this, "Nothing Happened",
Toast.LENGTH_SHORT).show();
            }
        }
    });
    view.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Cursor res = DB.getdata();
            if (res.getCount() == 0) {
                Toast.makeText(MainActivity.this, "No entry Exist",
Toast.LENGTH_SHORT).show();
            } else {
                StringBuffer buffer = new StringBuffer();
                while (res.moveToNext()) {
                    buffer.append("id : " + res.getString(0) + "\n");
                    buffer.append("Name : " + res.getString(1) + "\n");
                    buffer.append("email : " + res.getString(2) + "\n");
                }
                AlertDialog.Builder builder = new
AlertDialog.Builder(MainActivity.this);
                builder.setCancelable(true);
```

```
                builder.setTitle("User Entries");
                builder.setMessage(buffer.toString());
                builder.show();
            }
        }
    });
  }
}
```

DBHelper:

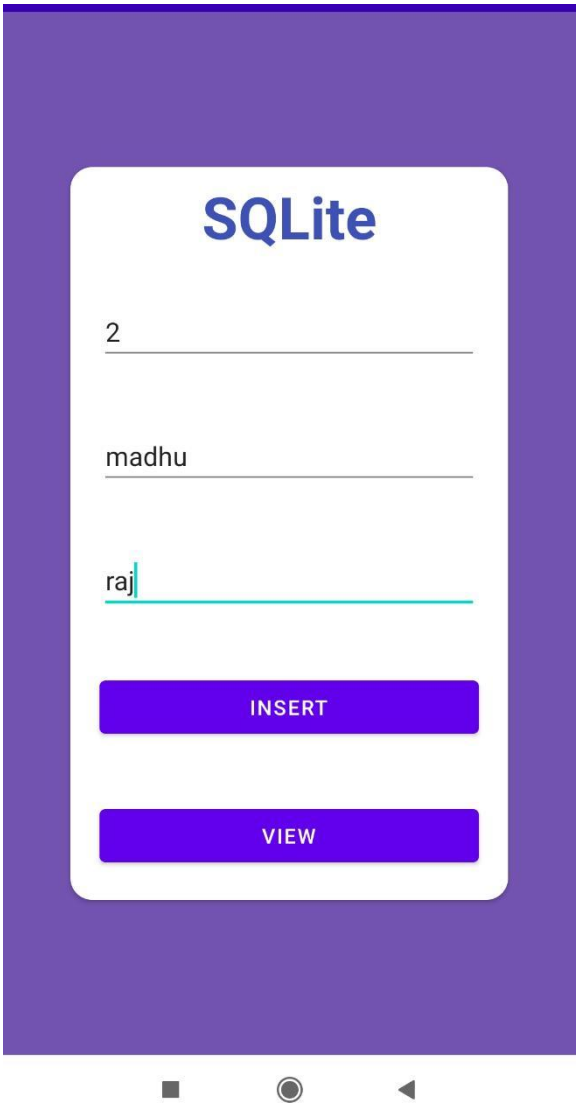
```
package com.example.adaptor;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
public class DBHelper extends SQLiteOpenHelper {
   public DBHelper(Context context) {
      super(context, "Userdata.db", null, 1);
   }
   @Override
   public void onCreate(SQLiteDatabase DB) {
```

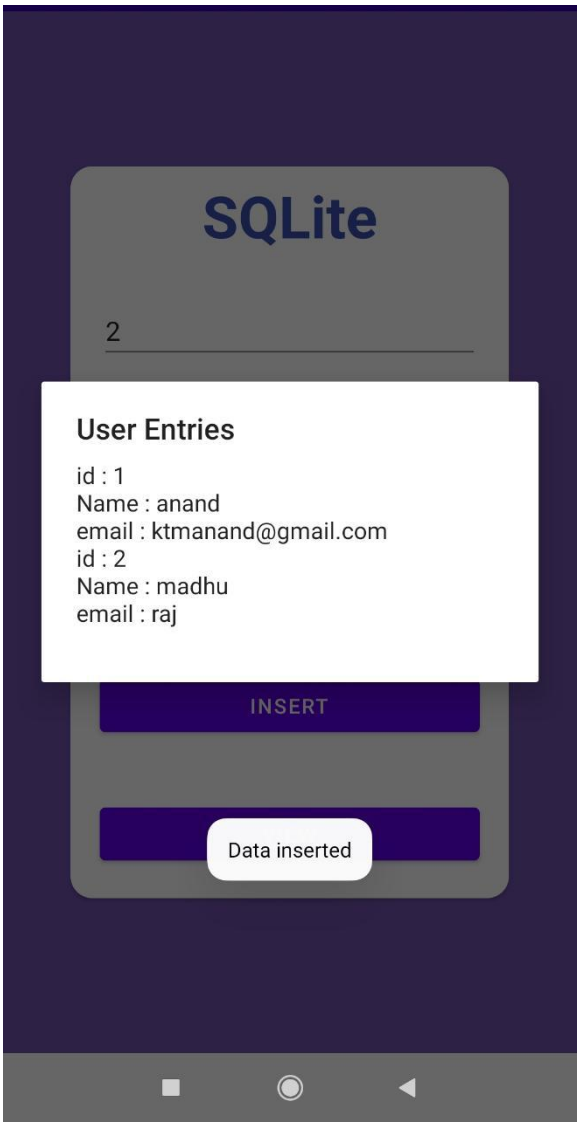
```
    DB.execSQL("create Table Userdetails(id TEXT primary key,name text,email text)");
    }
    @Override
    public void onUpgrade(SQLiteDatabase DB, int oldVersion, int newVersion) {
        DB.execSQL("DROP TABLE if exists Userdetails");
    }
    public Boolean insertuserdata(String id, String name, String email) {
        SQLiteDatabase DB = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put("id", id);
        contentValues.put("name", name);
        contentValues.put("email", email);
        long result = DB.insert("Userdetails", null, contentValues);
        if (result == -1) {
            return false;
        } else {
            return true;
        }
    }

    public Boolean updatedata(String id, String name, String email) {
        SQLiteDatabase DB = this.getWritableDatabase();
```

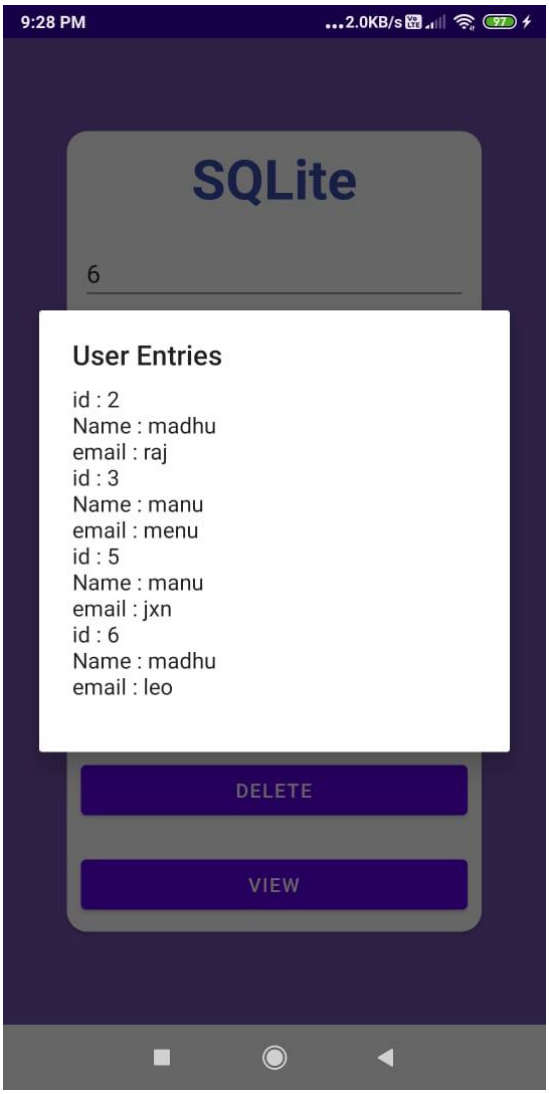
```
        ContentValues contentValues = new ContentValues();
        contentValues.put("name", name);
        contentValues.put("email", email);
        Cursor cursor = DB.rawQuery("select * from Userdetails where id=?", new
String[]{id});
        if (cursor.getCount() > 0) {
            long result = DB.update("Userdetails", contentValues, "id=?", new
String[]{id});
            if (result == -1) {
                return false;
            } else {
                return true;
            }

        } else{
            return false;}

    }

    public Boolean deletedata(String id) {
        SQLiteDatabase DB = this.getWritableDatabase();
        Cursor cursor = DB.rawQuery("Select * from Userdetails where id=?", new
String[]{id});
```

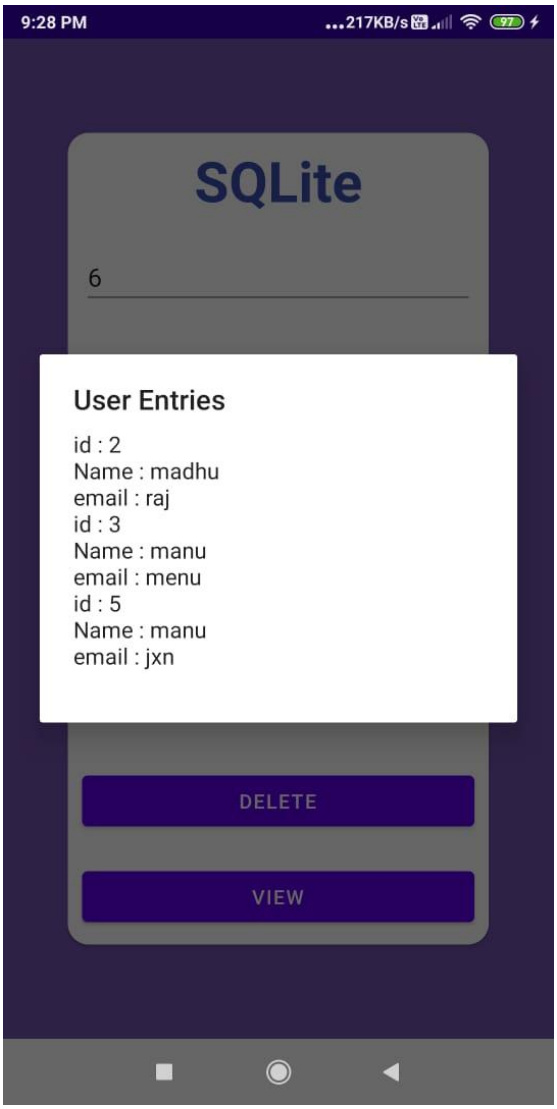
```
        if (cursor.getCount() > 0) {
            long result = DB.delete("Userdetails", "id=?", new String[]{id});
            if (result == -1) {
                return false;
            } else {
                return true;
            }
        } else {
            return false;
        }
    }

    public Cursor getdata() {
        SQLiteDatabase DB = this.getWritableDatabase();
        Cursor cursor = DB.rawQuery("Select * from Userdetails", null);
        return cursor;
    }
}
```

Output:


SQLite
2
madhu
raj
INSERT
VIEW


SQLite
2
User Entries
id : 1
Name : anand
email : ktmanand@gmail.com
id : 2
Name : madhu
email : raj
INSERT
Data inserted


9:28 PM
...2.0KB/s
SQLite
6
User Entries
id : 2
Name : madhu
email : raj
id : 3
Name : manu
email : menu
id : 5
Name : manu
email : jxn
id : 6
Name : madhu
email : leo
DELETE
VIEW


9:28 PM
...217KB/s
SQLite
6
User Entries
id : 2
Name : madhu
email : raj
id : 3
Name : manu
email : menu
id : 5
Name : manu
email : jxn
DELETE
VIEW