Java, December 2, Lab Activity 9

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Lab Activity-9

Deadline 02/12/2021 at 11.59pm for 100%, for 70% at 10.59pm 03/12/2021

9(a) Develop the JDBC with MySQL/Oracle database to perform the following

i) Create a table of your choice with minimum of five fields/columns.

ii) Insert at least ten records into the table.

iii) Display all the records in the table.

iv) Delete the particular record in the table.

v) Update the table with specific field/column

vi) Alter the table by adding the new field/column or drop the existing field/column.

Solution:

I'm adding entire code of all 6 parts at once. While running the program though, I made parts of the code as comments (which you may see in the screenshots below) in order for them not to hinder the execution.

yolo.java

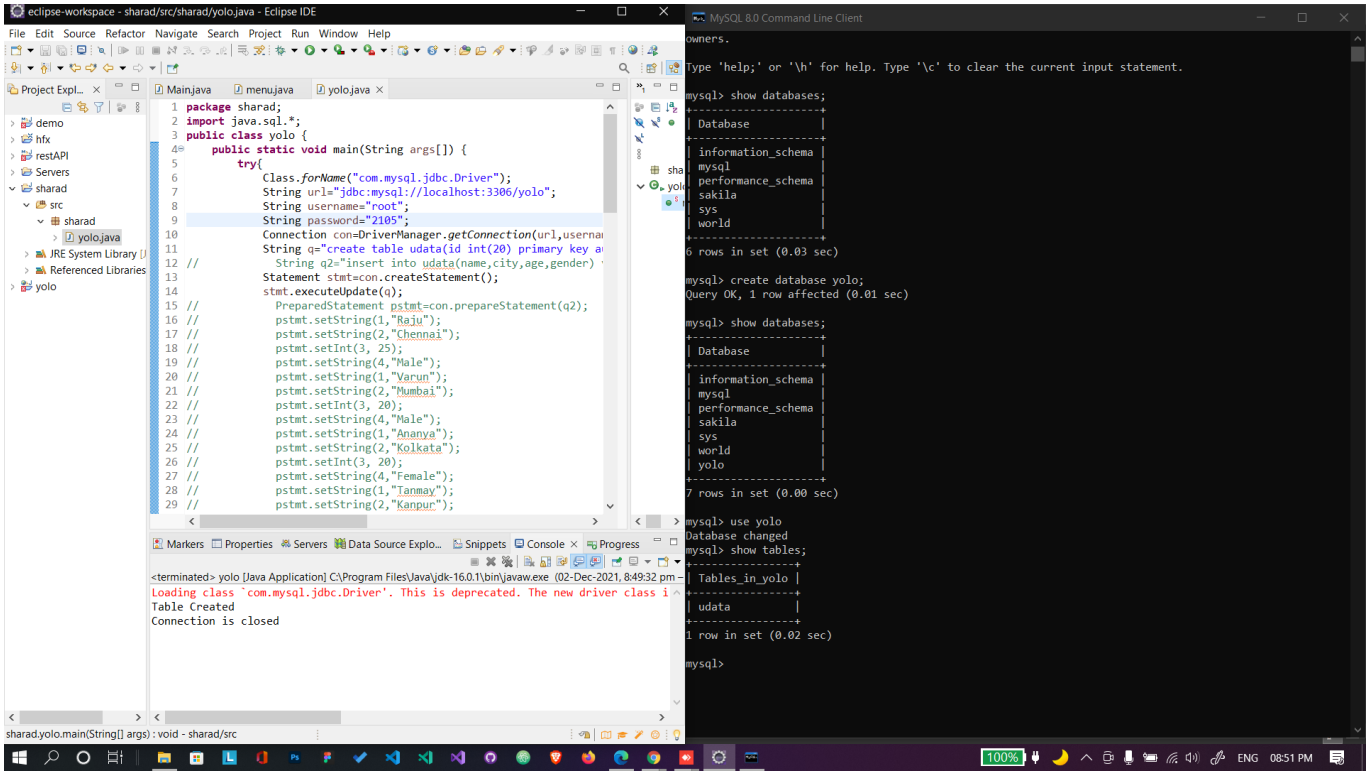
```
package sharad;
import java.sql.*;
public class yolo {
    public static void main(String args[]) {
        try{
            Class.forName("com.mysql.jdbc.Driver"); //load driver
            String url="jdbc:mysql://localhost:3306/yolo"; //connect to
database
            String username="root";
            String password="2105";
            Connection
con=DriverManager.getConnection(url,username,password); //create connection
            String q="create table udata(id int(20) primary key
auto_increment, name varchar(200), city varchar(400),age int(20),gender
varchar(200))";
            String q2="insert into udata(name,city,age,gender)
values(?,?,?,?)";
```

```
            Statement stmt=con.createStatement();
            stmt.executeUpdate(q);
            PreparedStatement pstmt=con.prepareStatement(q2);

            pstmt.setString(1,"Raju");
            pstmt.setString(2,"Chennai");
            pstmt.setInt(3, 25);
            pstmt.setString(4,"Male");
            pstmt.setString(1,"Varun");
            pstmt.setString(2,"Mumbai");
            pstmt.setInt(3, 20);
            pstmt.setString(4,"Male");
            pstmt.setString(1,"Ananya");
            pstmt.setString(2,"Kolkata");
            pstmt.setInt(3, 20);
            pstmt.setString(4,"Female");
            pstmt.setString(1,"Tanmay");
            pstmt.setString(2,"Kanpur");
            pstmt.setInt(3, 21);
            pstmt.setString(4,"Male");
            pstmt.setString(1,"Ayushman");
            pstmt.setString(2,"Gwalior");
            pstmt.setInt(3, 22);
            pstmt.setString(4,"Male");
            pstmt.executeUpdate();

            System.out.println("Table Created");
            System.out.println("Inserted.....");
            String q3="select * from udata where name='Ananya' or age=20";
            Statement stmt=con.createStatement();
            ResultSet set=stmt.executeQuery(q3);
            while(set.next())
            {
                int id=set.getInt(1);
                String name=set.getString(2);
                String city=set.getString(3);
                int age=set.getInt(4);
                String gender=set.getString(5);
                System.out.println(id+":"+name+":"+city+":"+age+":"+gender);
            }

            String q4="update udata set age=19 , city='Bengaluru' where
name='Ananya'";
            String q5="select*from udata";
            Statement stmt=con.createStatement();
```

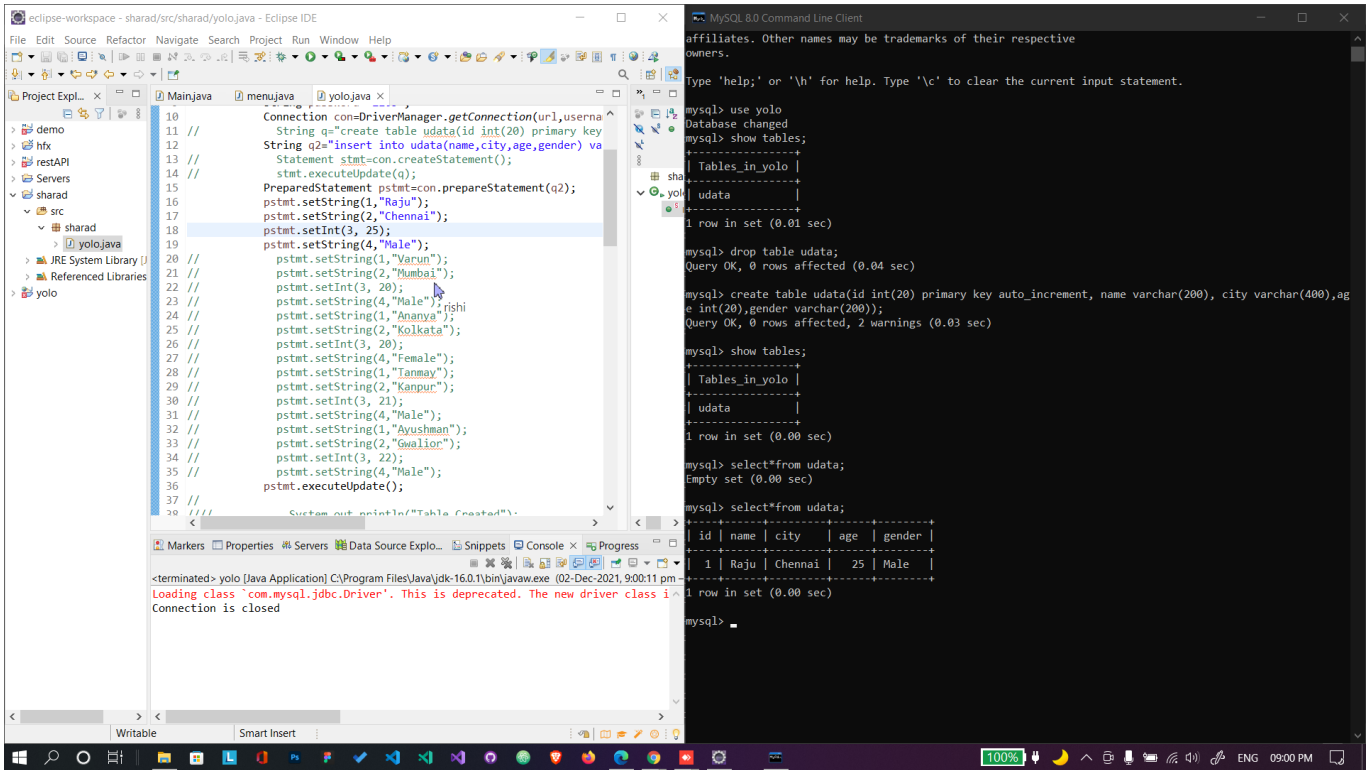
```
            stmt.executeUpdate(q4);
            ResultSet set=stmt.executeQuery(q5);
            while(set.next())
              {
                int id=set.getInt(1);
                String name=set.getString(2);
                String city=set.getString(3);
                int age=set.getInt(4);
                String gender=set.getString(5);
                System.out.println(id+":"+name+":"+city+":"+age+":"+gender);
              }

            String q6="delete from udata where name='Varun'";
            String q7="select*from udata";
            Statement stmt=con.createStatement();
            stmt.executeUpdate(q6);
            ResultSet set=stmt.executeQuery(q7);
            while(set.next())
              {
                int id=set.getInt(1);
                String name=set.getString(2);
                String city=set.getString(3);
                int age=set.getInt(4);
                String gender=set.getString(5);
                System.out.println(id+":"+name+":"+city+":"+age+":"+gender);
              }

            String q8="alter table udata add email varchar(200)";
            String q9="select*from udata";
            Statement stmt=con.createStatement();
            stmt.executeUpdate(q8);
            ResultSet set=stmt.executeQuery(q9);
            while(set.next())
              {
                int id=set.getInt(1);
                String name=set.getString(2);
                String city=set.getString(3);
                int age=set.getInt(4);
                String gender=set.getString(5);
                String email=set.getString(6);
                System.out.println(id+":"+name+":"+city+":"+age+":"+gender+":
"+email);
              }

            con.close();
```

```
            if(con.isClosed())
            {
                System.out.println("Connection is closed");
            }
            else
            {
                System.out.println("Connection is created");
            }

        }
        catch(Exception e)
        {
            e.printStackTrace();
        }

    }

}
```

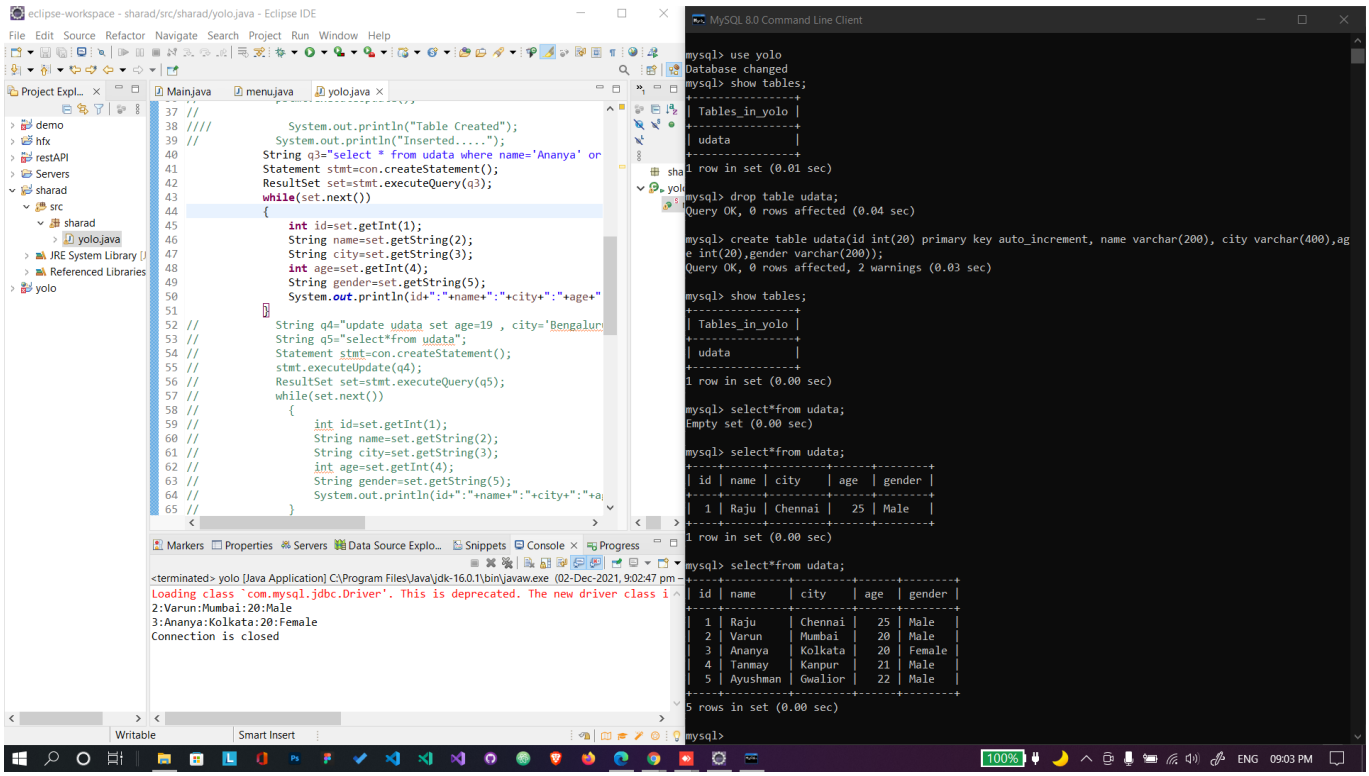
- **Table creation:**



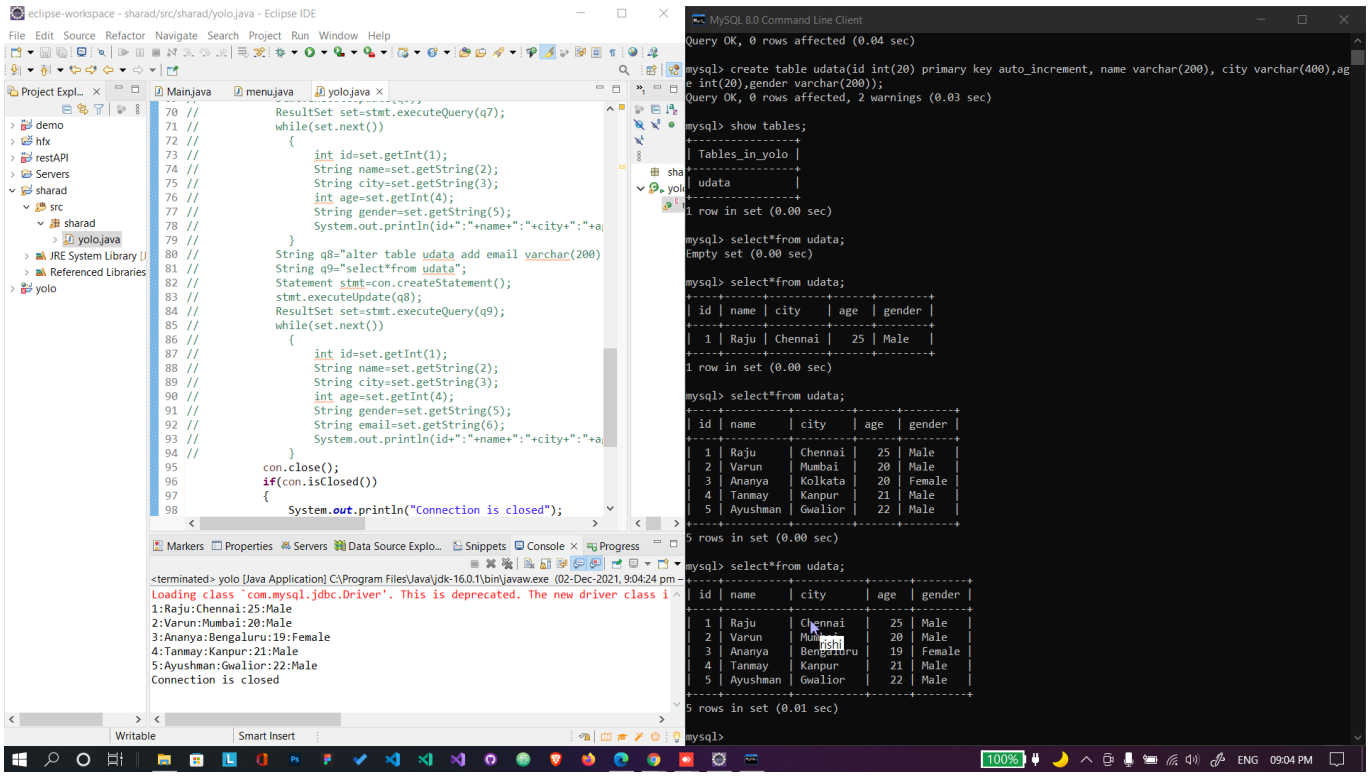
- **Table insertion:**



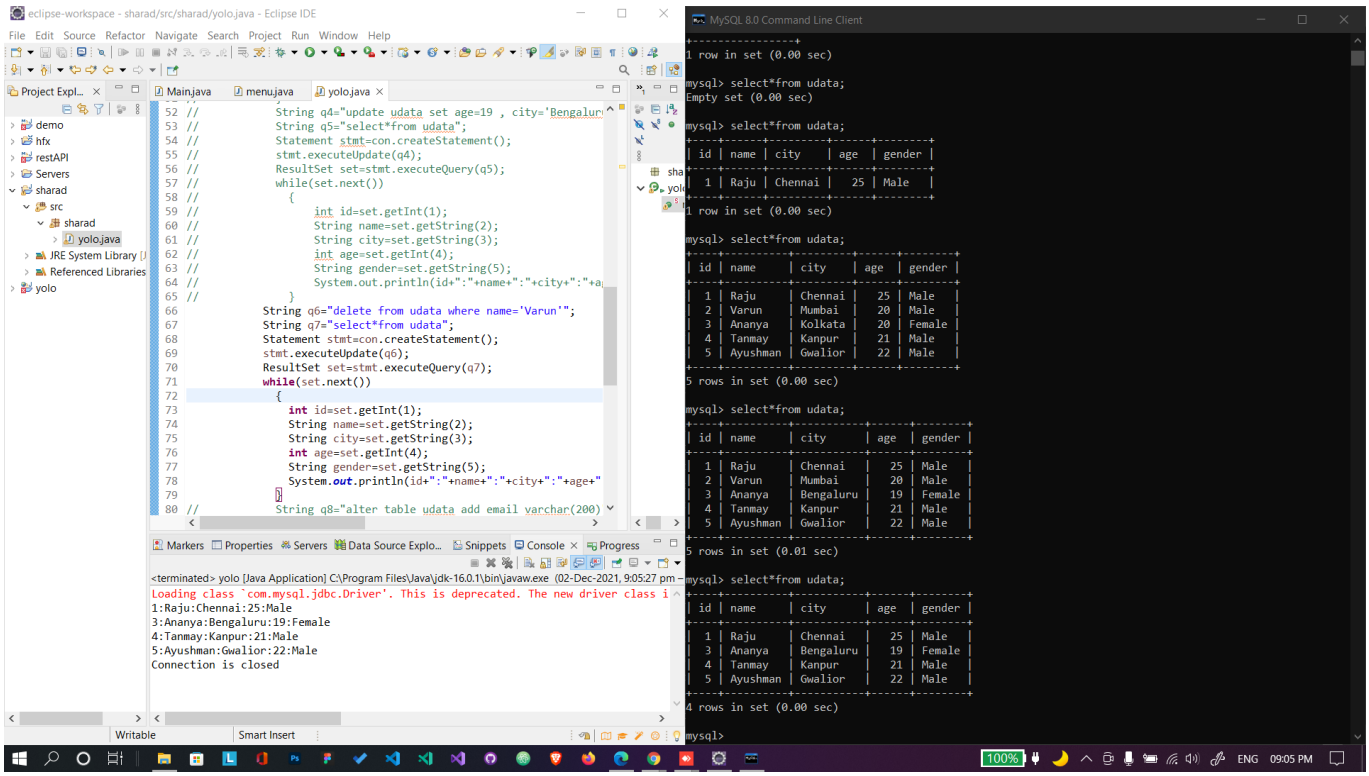
- **Displaying the records:**



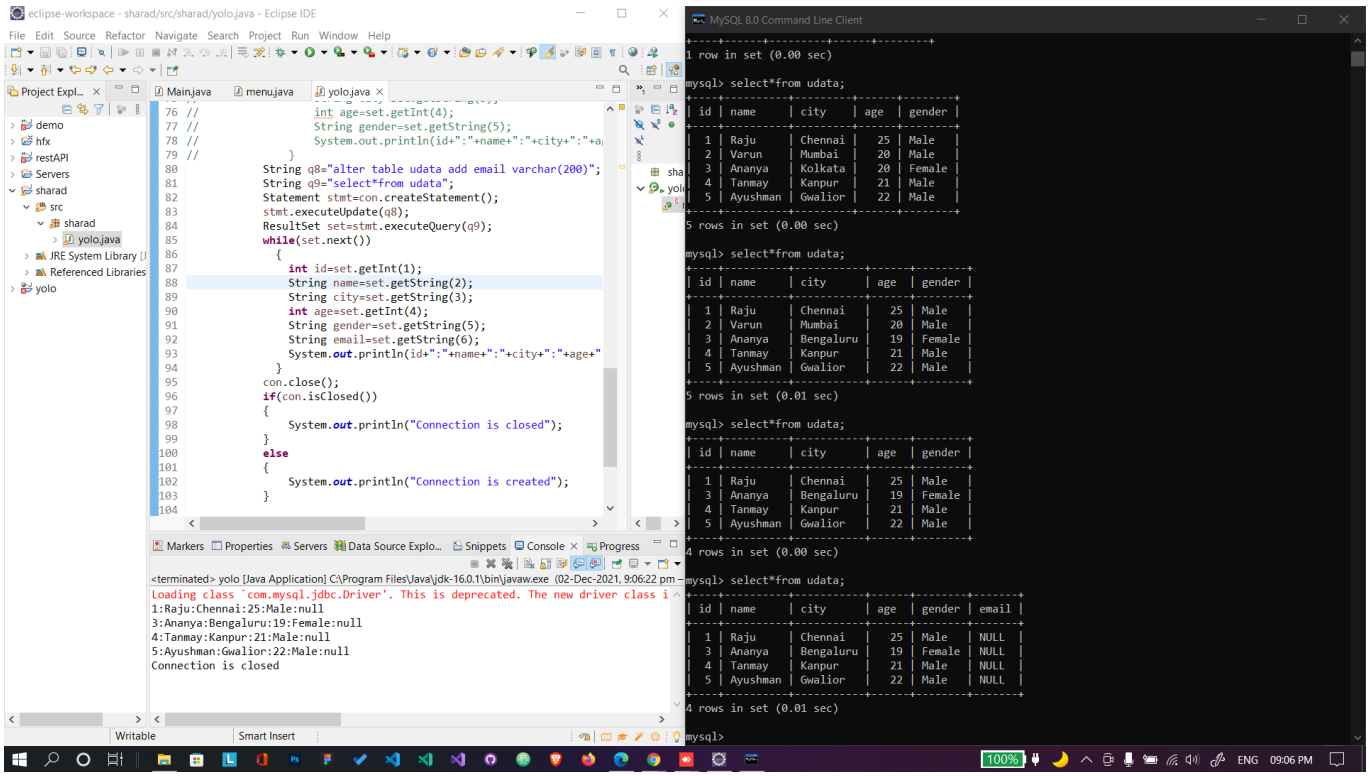
- **Updating the records:**



- **Deleting the records:**



- **Altering the table and adding another column:**


eclipse-workspace - sharad/src/sharad/yolo.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Project Expl...
demo
hfx
restAPI
Servers
sharad
src
sharad
yolo.java
JRE System Library
Referenced Libraries
yolo
Main.java
menu.java
yolo.java
76 // int age=set.getInt(4);
77 // String gender=set.getString(5);
78 // System.out.println(id+":"+name+":"+city+":"+a
79 // }
80 String q8="alter table udata add email varchar(200)";
81 String q9="select*from udata";
82 Statement stmt=con.createStatement();
83 stmt.executeUpdate(q8);
84 ResultSet set=stmt.executeQuery(q9);
85 while(set.next())
86 {
87 int id=set.getInt(1);
88 String name=set.getString(2);
89 String city=set.getString(3);
90 int age=set.getInt(4);
91 String gender=set.getString(5);
92 String email=set.getString(6);
93 System.out.println(id+":"+name+":"+city+":"+age+"
94 }
95 con.close();
96 if(con.isClosed())
97 {
98 System.out.println("Connection is closed");
99 }
100 else
101 {
102 System.out.println("Connection is created");
103 }
104
Markers Properties Servers Data Source Explo... Snippets Console Progress
<terminated> yolo [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (02-Dec-2021, 9:06:22 pm
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class i
1:Raju:Chennai:25:Male:null
3:Ananya:Bengaluru:19:Female:null
4:Tanmay:Kanpur:21:Male:null
5:Ayushman:Gwalior:22:Male:null
Connection is closed
Writable
Smart Insert
MySQL 8.0 Command Line Client
1 row in set (0.00 sec)
mysql> select*from udata;
id	name	city	age	gender
1	Raju	Chennai	25	Male
2	Varun	Mumbai	20	Male
3	Ananya	Kolkata	20	Female
4	Tanmay	Kanpur	21	Male
5	Ayushman	Gwalior	22	Male
5 rows in set (0.00 sec)
mysql> select*from udata;
id	name	city	age	gender
1	Raju	Chennai	25	Male
2	Varun	Mumbai	20	Male
3	Ananya	Bengaluru	19	Female
4	Tanmay	Kanpur	21	Male
5	Ayushman	Gwalior	22	Male
5 rows in set (0.01 sec)
mysql> select*from udata;
id	name	city	age	gender
1	Raju	Chennai	25	Male
3	Ananya	Bengaluru	19	Female
4	Tanmay	Kanpur	21	Male
5	Ayushman	Gwalior	22	Male
4 rows in set (0.00 sec)
mysql> select*from udata;
id	name	city	age	gender	email
1	Raju	Chennai	25	Male	NULL
3	Ananya	Bengaluru	19	Female	NULL
4	Tanmay	Kanpur	21	Male	NULL
5	Ayushman	Gwalior	22	Male	NULL
4 rows in set (0.01 sec)
mysql>
100%
ENG 09:06 PM