Database Connectivity
Project title - Hotel Management System

Drive Link for Video Presentation -

https://drive.google.com/file/d/1oJEsYrN6eUVA7T_xCljDsaBHlpaTwxwY/view

Author -

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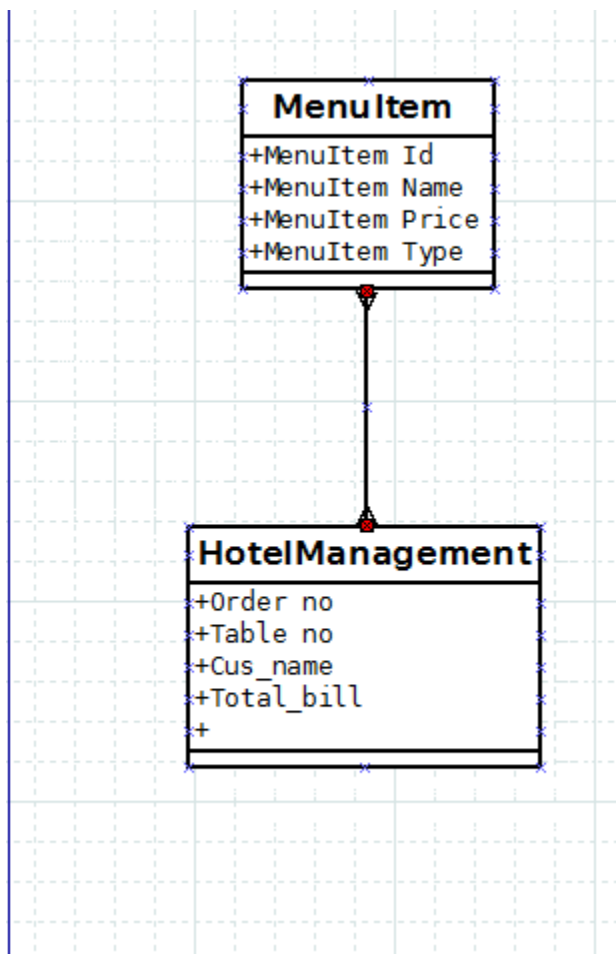Pratik Raut   (2019BTECS00050)
Batch - S3

About

In this project we have implemented Hotel Management System to generate bills and maintain record of customers using JAVA and MySQL
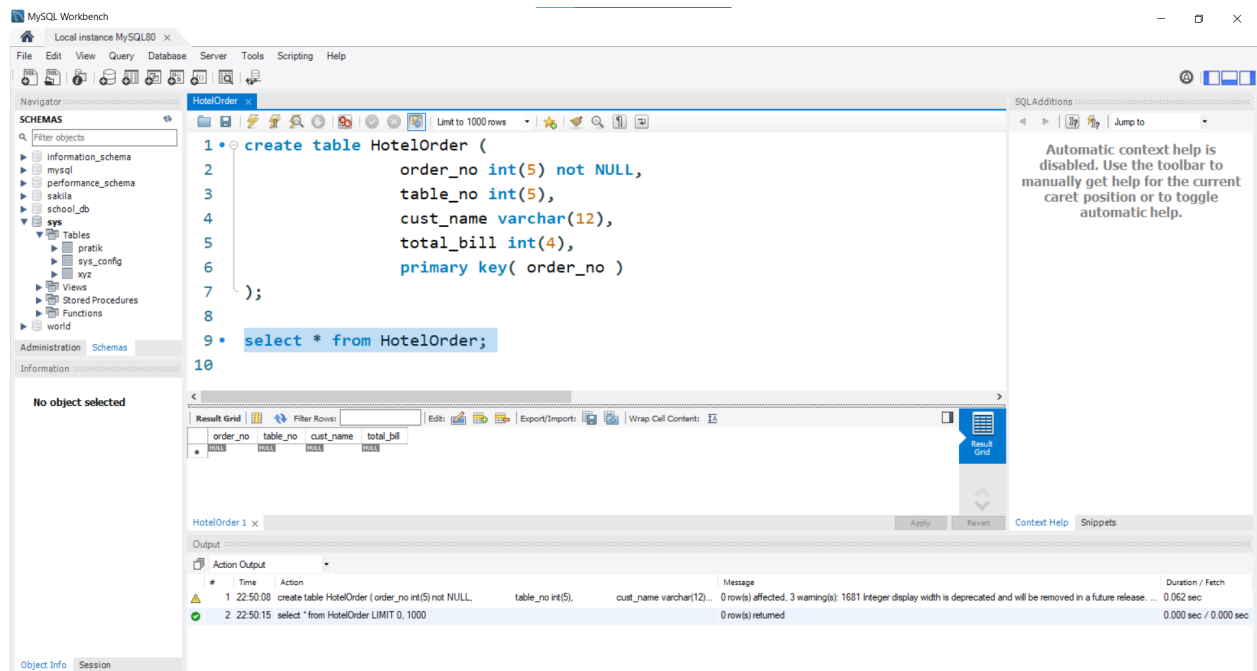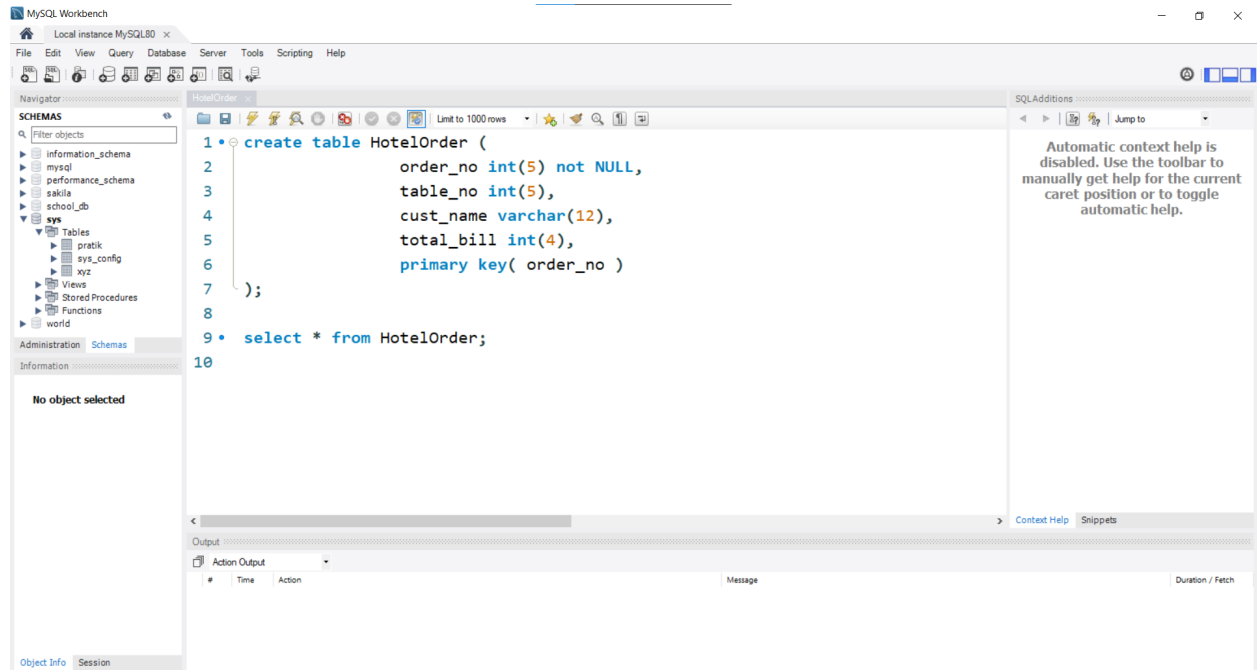
Functionalities

1. User can add Menu Items available in hotel and set their prices accordingly
2. Bill is generated for every order bill amt can be calculated by just entering menu item code instead of typing complete name of menu item and total bill is calculated
3. Every order detail is stored in a database using JDBC that is this Java application connected to the database and all the entries get directly stored in the database
4. User can also update entries if any mistake happens while entering the data

Relational Model

```
                    ┌─────────────────────┐
                    │      MenuItem       │
                    ├─────────────────────┤
                    │ +MenuItem Id        │
                    │ +MenuItem Name      │
                    │ +MenuItem Price     │
                    │ +MenuItem Type      │
                    └──────────┬──────────┘
                               │
                               │
                    ┌──────────┴──────────┐
                    │  HotelManagement    │
                    ├─────────────────────┤
                    │ +Order no           │
                    │ +Table no           │
                    │ +Cus_name           │
                    │ +Total_bill         │
                    │ +                   │
                    ├─────────────────────┤
                    └─────────────────────┘
```

Output Screenshots -

```java
public static void main(String[] args) throws Exception
{

  int table_nox;
  int order_nox;
  String cus_namex;
  int tot_billx;

  String url = "jdbc:mysql://localhost:3306/sys";
  String uname = "root";
  String pass = "Mrunal123";

  Class.forName("com.mysql.cj.jdbc.Driver");
  System.out.println("Driver loaded successfully");
  Connection conn = DriverManager.getConnection(url, uname, pass);
  System.out.println("Connection Established");

  Statement stmt = conn.createStatement();
  tot_billx = generateBill();

```


Console output:

```
<terminated> HotelManagement [Java Application] C:\Program Files\Java\jdk-15.0.2\bin\javaw.exe (Jun 11, 2021, 10:34:03 PM – 10:34:19 PM)
Driver loaded successfully
Connection Established
Enter Item Code :
0
Enter Item Code :
1
Enter Item Code :
2
Enter Item Code :
3
Enter Item Code :
4
Enter Item Code :
-1
Enter Order No. :
101
Enter Table Number :
201
|---Inputed by User---
Inserting records into the table...
Displaying content of Table
 Order No: 101, Table No: 201, Name: Neil Tyson, Total Bill: 100
 Order No: 102, Table No: 202, Name: Mark Zuck, Total Bill: 200
 Order No: 103, Table No: 203, Name: Albert Smith, Total Bill: 300
---Select Ended---
Updated Table

 Order No: 101, Table No: 201, Name: Neil Tyson, Total Bill: 100
 Order No: 102, Table No: 202, Name: Carl Sagan, Total Bill: 200
 Order No: 103, Table No: 203, Name: Albert Smith, Total Bill: 300
```

Source Code - :

```java
import java.sql.*;
import java.util.*;
import java.io.*;

class MenuItem
{
  int price;
  int itemid;
  String menuName;
  String type;
  public MenuItem(int itemid, int price ,String menuName ,String type)
  {
    this.price = price ;
    this.menuName = menuName;
    this.type = type;
    this.itemid = itemid;
  }
  public String getmenuName()
  {
    return menuName;
  }
  public int getPrice()
  {
    return price;
  }
  public String getType()
  {
    return type;
  }
  public int getitemid()
  {
    return itemid;
  }
}

public class HotelManagement
```

```java
{

    static int generateBill()
    {
        ArrayList<MenuItem> m = new ArrayList<MenuItem>();
            m.add(new MenuItem(0,100,"Veg Kolhapuri","Main Course"));
            m.add(new MenuItem(1,200,"Samosa","Main Course"));
            m.add(new MenuItem(2,300,"Vadapav","Main Course"));
            m.add(new MenuItem(3,400,"Biryani","Main Course"));
            m.add(new MenuItem(4,500,"Dal Bhat","Main Course"));
        int id, p=0;
        Scanner sc = new Scanner(System.in);
        while(true)
        {

            System.out.println("Enter Item Code : ");
            id = sc.nextInt();
            if(id == -1)
            {
                break;
            }
            p += m.get(0).getPrice();
        }
        return p;
    }

    public static void main(String[] args) throws Exception
    {

        int table_nox;
        int order_nox;
        String cus_namex;
        int tot_billx;

        String url = "jdbc:mysql://localhost:3306/sys";
        String uname = "root";
        String pass = "Mrunal123";

        Class.forName("com.mysql.cj.jdbc.Driver");
        System.out.println("Driver loaded successfully");
```

```java
Connection conn = DriverManager.getConnection(url, uname, pass);
System.out.println("Connection Established");

Statement stmt = conn.createStatement();
 tot_billx = generateBill();


//1. Insert
// Inputed via User

Scanner sc = new Scanner(System.in);

System.out.println("Enter Customer Name : ");
cus_namex = sc.nextLine();

System.out.println("Enter Order No. : ");
order_nox = sc.nextInt();

System.out.println("Enter Table Number : ");
table_nox = sc.nextInt();

System.out.println("---Inputed by User---");

// Inserted to Table (Database)
    System.out.println("Inserting records into the table...");

    String ins = "INSERT INTO HotelOrder(order_no, table_no, cust_name,
total_bill) VALUES ("+order_nox+", "+table_nox+", "+cus_namex+",
"+tot_billx+")";
    stmt.executeUpdate(ins);


  //2. Select
    // Displaying content of Table
    String disp = "select order_no, table_no, cust_name, total_bill from
HotelOrder";
    ResultSet rs = stmt.executeQuery(disp);
    while(rs.next()){
       //Display values
       System.out.print(" Order No: " + rs.getInt("order_no"));
```

```java
            System.out.print(", Table No: " + rs.getInt("table_no"));
            System.out.print(", Name: " + rs.getString("cust_name"));
            System.out.println(", Total Bill: " + rs.getInt("total_bill"));
        }

        System.out.println("---Select Ended---");



    // Update
        String upd = "update HotelOrder " + "set cust_name = 'Rahul Sharma' where order_no=102";
        stmt.executeUpdate(upd);

                rs = stmt.executeQuery(disp);
        while(rs.next()){
          //Display values
          System.out.print(" Order No: " + rs.getInt("order_no"));
            System.out.print(", Table No: " + rs.getInt("table_no"));
            System.out.print(", Name: " + rs.getString("cust_name"));
            System.out.println(", Total Bill: " + rs.getInt("total_bill"));
        }


  }

}
```