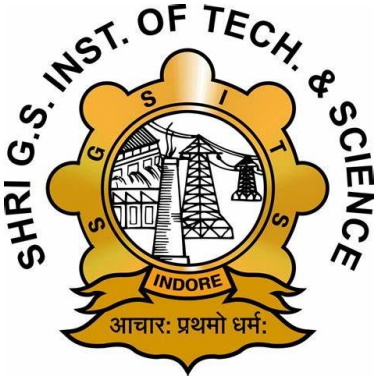
SHRI G.S. INSTITUTE OF TECHNOLOGY AND SCIENCE
INDORE (M.P.)

Restaurant Billing System



MASTER OF COMPUTER APPLICATION
2019-2022

CT20001 - Object Oriented Programming Using JAVA

Submitted To:
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Submitted By:
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(0801CA191002)

Recommendation :-

The project report entitled " Restaurant Billing System " submitted by Amisha Agrawal student of MCA second year in the session 2019-22, towards partial fulfillment of the degree of Master of Computer Applications of Rajiv Gandhi Proudyogiki Vishwavidhyalaya, Bhopal, is a satisfactory account of {his/her/their} work and is recommended for the award of degree.

Mr. Upendra Singh
(Project Guide)
Department of Comp. Tech. & Application

INDEX :-

Acknowledgement

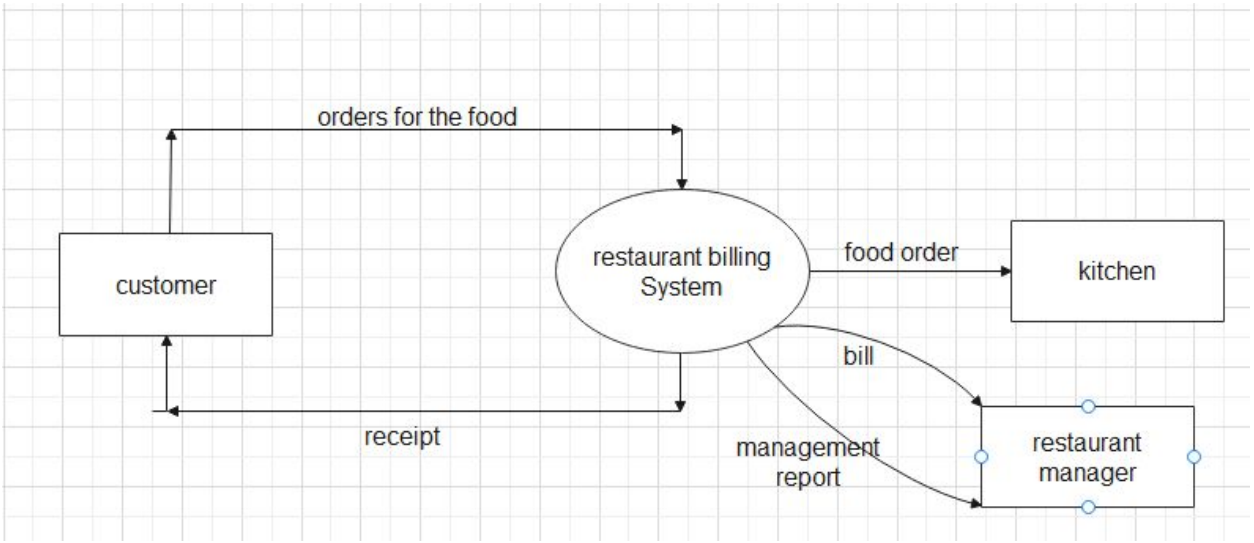
We are heartily pleased to acknowledge all those people who have helped us in the successful completion of this project. With great pleasure we express our heartfelt gratitude to our esteemed guide, Mr.Upendra Singh Lecturer Department of Computer Technology & Application, S.G.S.I.T.S. Indore. His persistent encouragement, perpetual motivation, everlasting patience and valuable technical inputs in discussions have enabled the successful completion of this project.

We sincerely wish to express our gratitude to all the members of staff of M.C.A. who have extended their cooperation at all times and have contributed in their own way in developing the project. Successful completion of a project is not an individual effort. It is an outcome of the cumulative effort of a number of persons, each having his own importance to the objective. We are thankful to our parents for being a constant source of encouragement in all our endeavors. Indeed it is their support that helps us through the ups and downs of life. The support and suggestion of our friends are worth appreciation and thankfulness. A blend of gratitude, pleasure, great satisfaction and indebtedness is what we feel to convey to all those who have directly or indirectly contributed to the successful completion of our project work.

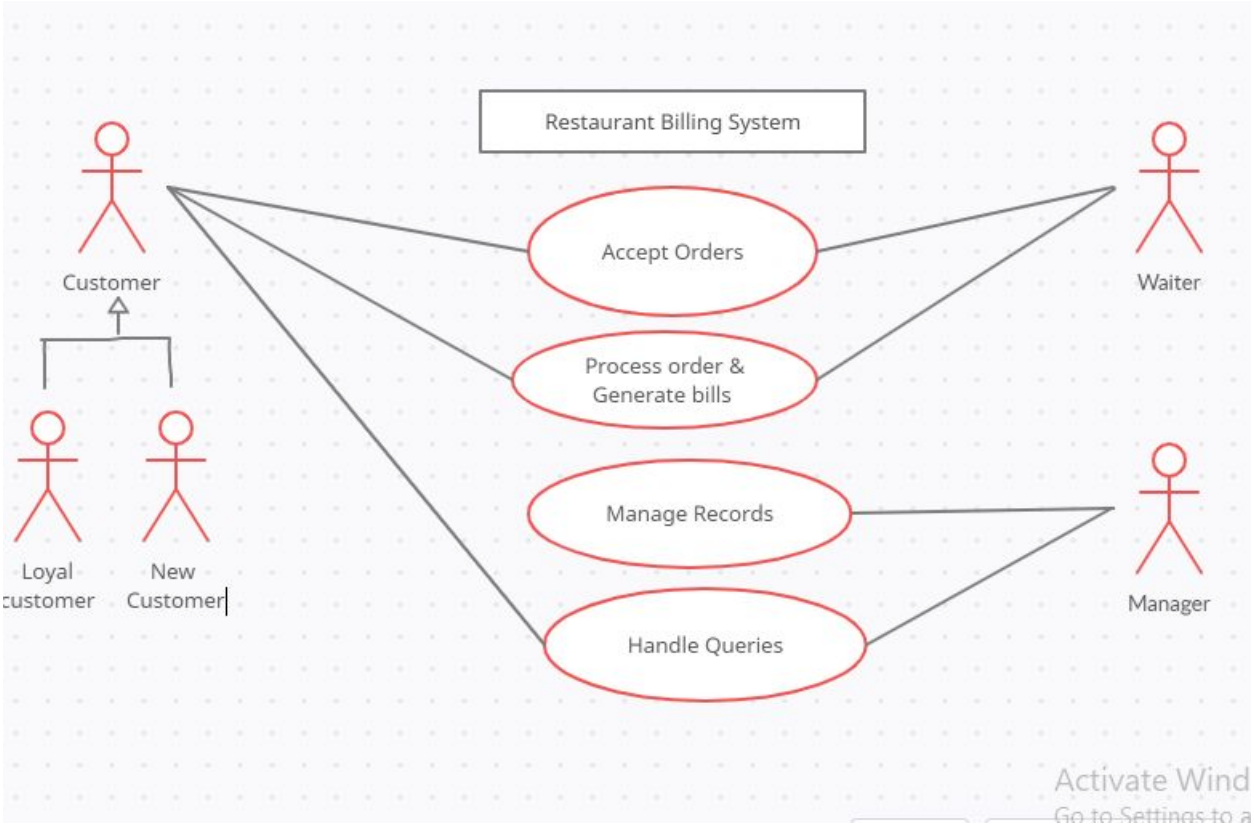
Introduction:-

In my restaurant billing system , first we show the Menu items that the restaurant is offering . After that input is taken from the user of this choice , and the number of plates customers want to order. After that system asks if he wants to order anything else or we should generate a bill. If a customer presses “Yes” then the customer continues to place an order and if the customer presses “No” then a bill is generated for a customer and saved in a file.

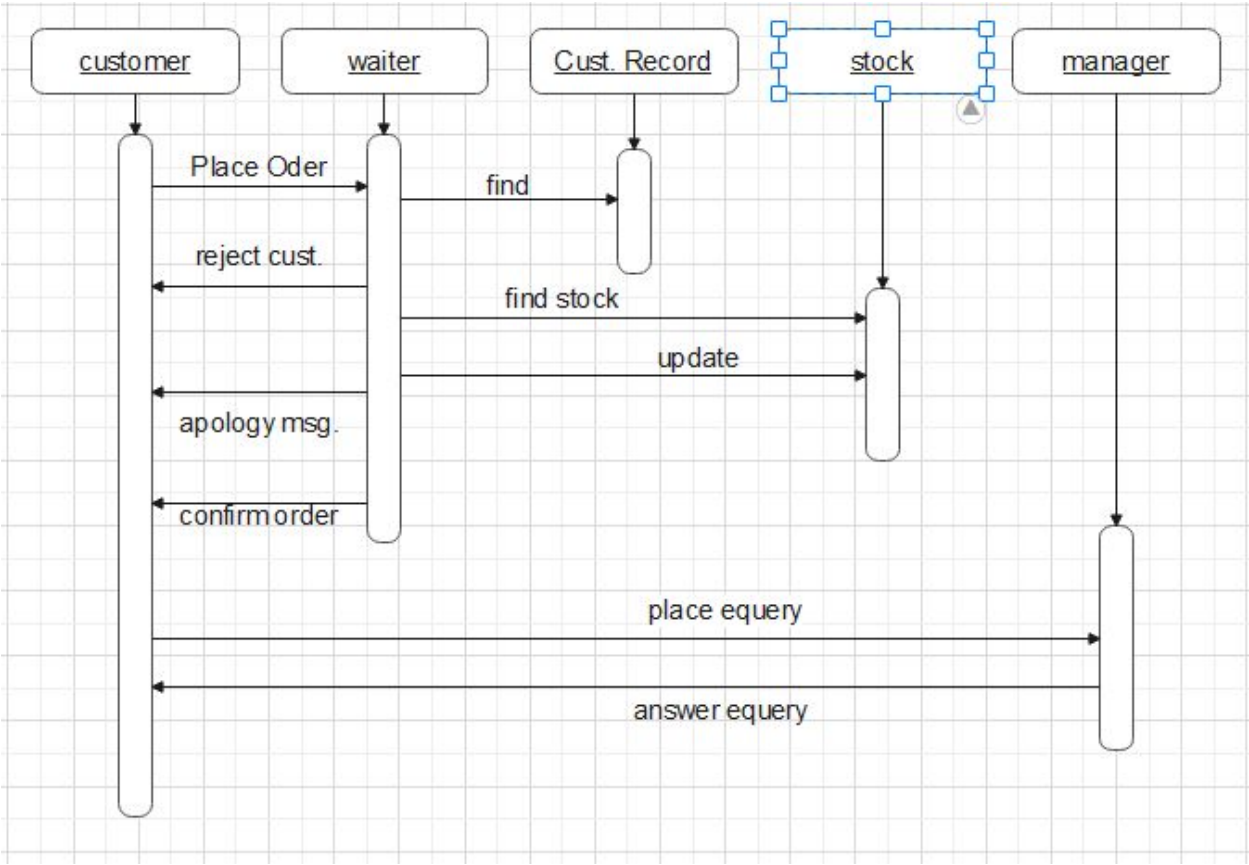
Data Flow Diagram:-



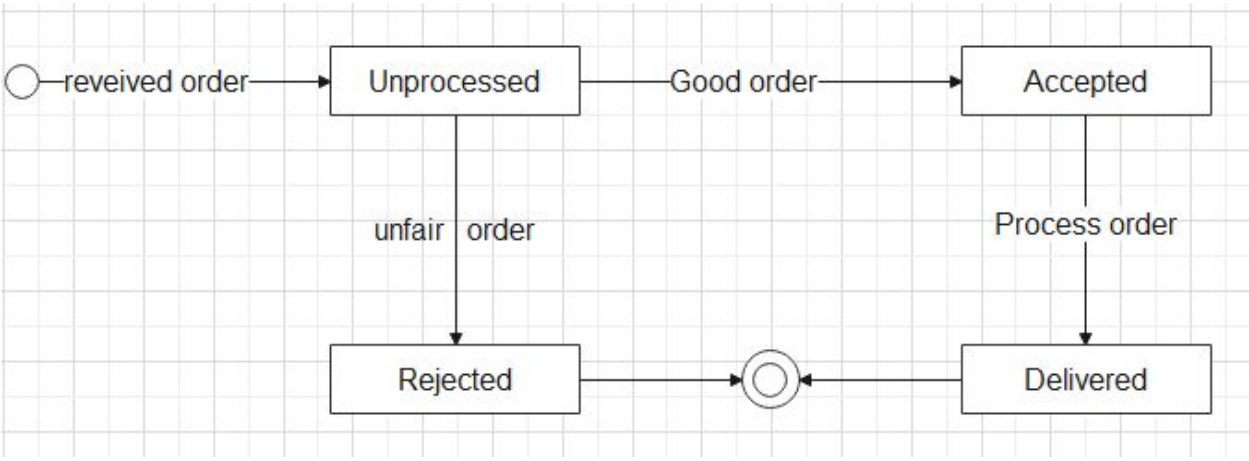
Use Case Diagram :-



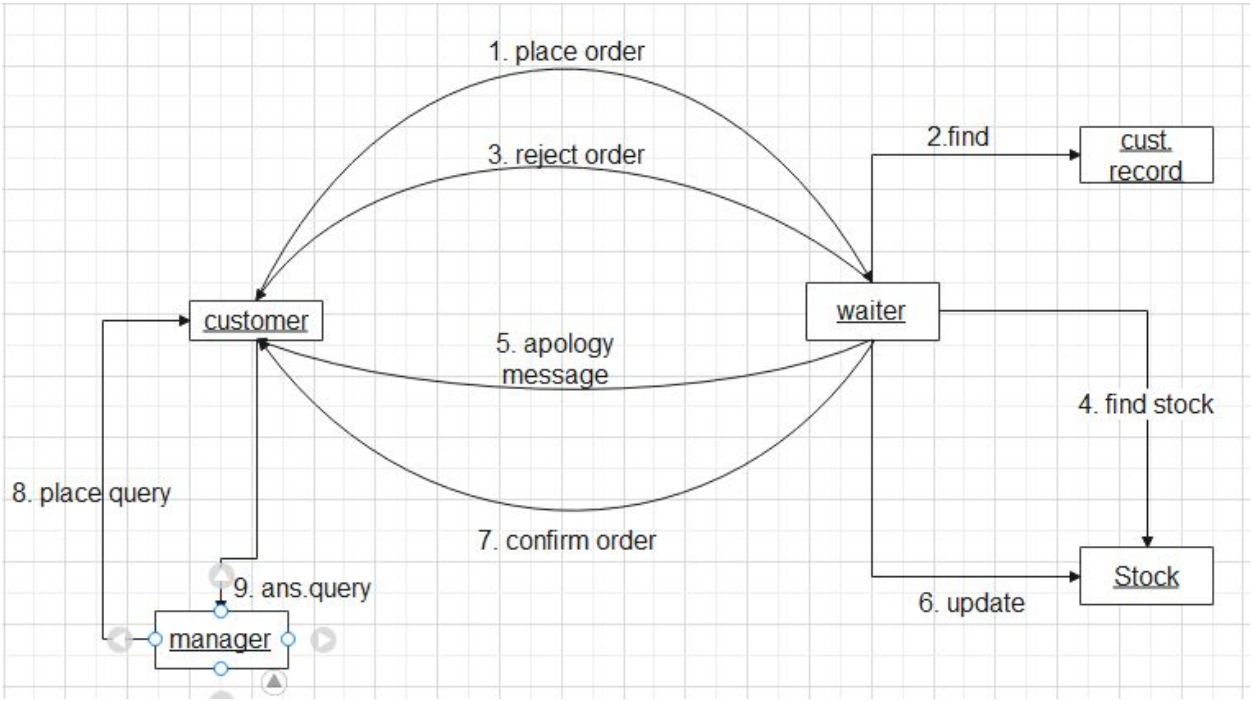
Sequence Diagram :-



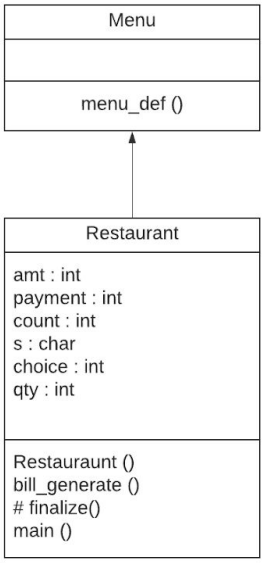
State Transition Diagram :-



Collaboration Diagram :-



Class Diagram :-



Code Snippet :-

```
interface I1
{
   //interface holds abstract methods only
   abstract void menu_def();
}
//interface being implemented into a class
public class Menu implements I1
{
   //abstract class of interface defined in the class
   //menu_def class describes the menu items of restaurant
   public void menu_def()
   {
        System.out.println("\t\t 1.Fried Rice     |  \tRs.80/-");
        System.out.println("\t\t 2.French Fries   |  \tRs.120/-");
        System.out.println("\t\t 3.Idli Sambhar   |    \tRs.150/-");
        System.out.println("\t\t 4.Dosa           |  \tRs.150/-");
        System.out.println("\t\t 5.Pav Bhaji      |  \tRs.180/-");
        System.out.println("\t\t 6.Fried Idli     |  \tRs.180/-");

        System.out.println("\t\t\n\n PRESS 0 IF YOU WANT TO EXIT ");
   }
}
```

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

//Restaurant class inherits the properties of Menu class
//inheritance concept applied
public class Restaurant extends Menu
{
   //default constructor of class defined
   //constructors are called automatically when objects are created
   Restaurant()
   {
        System.out.println("\t-------------------------------------");
        System.out.println("\t\t** Restaurant Bill System ** ");
        System.out.println("\t-------------------------------------");
   }

   public void bill_generate(int amt,int qty)
   {
        amt = amt*qty;
```

```
}

//driver class defined
public static void main(String [] args) throws IOException
{
    //object of scanner class created to reads input from user
    Scanner sc = new Scanner(System.in);
    //object of Restaurant class created
    Restaurant obj1 = new Restaurant();
    //interger variables defined for calculations
    int amt,payment=0;
    //count variable to count the no. of items ordred
    int count =0;
    char s='y';
    //while loop applied untill customer has ordered the food
    while(s=='Y'||s=='y')
    {
        //method of Menu class called
        obj1.menu_def();
        System.out.println("\t\tEnter the item you want to order");
        //choice read from user
        int choice = sc.nextInt();
        System.out.println("\t\tEnter the Quantity you want to order =");
        //quantity read from user
        int qty = sc.nextInt();
        //switch case applied with the choice as parameter in it.
        switch (choice)
        {
            case 0:
            {
                System.out.println("Total bill ="+ payment);
                break;
            }
            // Fried Rice = Rs.80/-
            case 1:
            {
                amt = 80;
                payment = payment+(amt*qty);
                count = count + qty;
                break;
            }
            // French Fries = Rs.120/-
            case 2:
            {
                amt = 120;
                payment = payment+(amt*qty);
                count = count + qty;
                break;
            }
```

```
// Idli Sambhar = Rs.150/-
case 3:
    // Dosa = Rs.150/-
case 4: {
    amt = 150;
    payment = payment+(amt*qty);
    count = count + qty;
    break;
}
// Pav Bhaji = Rs.180/-
case 5:
    // Fried Idli = Rs.180/-
case 6: {
    amt = 180;
    payment = payment+(amt*qty);
    count = count + qty;
    break;
}
default:
{
    System.out.println("Sorry you have entered wrong choice .");
```

Screenshot :-

```
C:\Users\Amisha\.jdks\corretto-1.8.0_275\bin\java.exe ...
    ---------------------------------------
        ** Restaurant Bill System **
    ---------------------------------------
         1.Fried Rice      |     Rs.80/-
         2.French Fries    |     Rs.120/-
         3.Idli Sambhar    |     Rs.150/-
         4.Dosa            |     Rs.150/-
         5.Pav Bhaji       |     Rs.180/-
         6.Fried Idli      |     Rs.180/-


 PRESS 0 IF YOU WANT TO EXIT
        Enter the item you want to order
        3
        Enter the Quantity you want to order =
        5
        Do you want to order anything else ? (Yes/No)
n
Your Bill has been generated in file
Total Amount = 750
        **THANK YOU**        **VISIT AGAIN**

Process finished with exit code 0
```