**A Report on Open ended problem titled**

**“IMPLEMENTATION OF CHAT STALL MANAGEMENT”**

*Submitted for partial fulfillment of IV semester OOPS Laboratory*

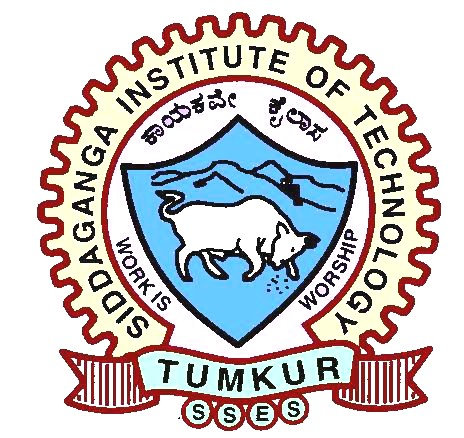
by

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**TABLE OF CONTENTS**

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Content** | **Page No.** |
| **1.** | **Abstract** | **2** |
| **2.** | **Introduction** | **3** |
| **3.** | **Implementation** | **4** |
| **4.** | **Conclusion** | **5** |
|  |  |  |

**1**.**ABSTRACT**

The program will be running in a pc, can be accessed by store keeper who can trace the activities.

If a customer wants to order a menu will be displayed on screen (computer is placed such that both customer and shopkeeper can see it). The desired order is taken from the customer and is placed in a queue. When an order is being delivered near the counter the order will be deleted and it displays the name of next person to whom the food has to be delivered. It adds GST during billing and total amount will asked to pay and it asks the feedback of the customer.

**HISTORY:**

1. The shopkeeper is not able to calculate the orders and respective sum total price.
2. He is not able to track which order was given by a respective individual.
3. He is not able to keep track, who has paid money in the big crowd and who hasn’t paid.
4. He is not able to keep track of total sales such that, over sight on the entire business is not clear as a result he is unable to know whether he  is in profit or loss instantly.
5. The GST has to be taken from the customer during billing and total GST they need to pay is  calculated through program.

**FEATURES:**

The program will have following features for customers.

1. To order Vadapav, Samosa, Kachori by seeing the menu and respective prices.
2. To get the total sum they need to pay is calculated.
3. The position of their order in the queue so that get to know when they will be served.
4. To give feedback on the services.

The program will have following features for store keeper.

1. To see the orders in queue to be served.
2. To see the orders that already be served.
3. To see the payment status of individual customer.
4. To see total orders served and total tax to be paid.
5. To see the summary of the feedback given by the customers.

**2.INTRODUCTION:**

This is an efficient program which can be used by the shop-keeper of the chat stall for their daily maintenance of the income and calculation of total tax (GST) payable. This program also helps to keep track of orders.

The **Linear** **linked list** from standard template library of C++ is the data structure used to implement this program. Linked list is a linear non-primitive data structure, Linked lists works on the principle of dynamic memory allocation, means memory will be allocated during the run time hence there will be no unnecessary wastage of memory. Linked-list is used here because it is very convenient to use.

Basically this program works on *“FIRST COME FIRST SERVE”* logic which can be achieved effectively by Queues. Here queues are implemented using linked-list where a new order will be placed at end of the queue and an order which has been served will be deleted from the first position.

File management of C++ is used to store the entries such as name of the person who bought the chats, the items he bought, number of items bought by him, total cost of all the items he bought, the total amount accepted including the tax. The entries which are stored in the file will be appended whenever the there is a billing process. Even the feedback which is taken from the costumer will be saved in the form of a file hence even if the program is closed the data will be present in the file and which can be accessed and can be used in the program.

Data hiding, inheritance, function overloading features of C++ are used in this.

**3. IMPLEMENTATION:**

The Chat Stall Management is mainly developed keeping in mind the problems faced by the store manager such as keeping track of the order in which the chats have to be served and managing the records of the sales will be easy as they are stored on files and as implementation of GST is implicit it reduces the burden on shop-keeper.

Linked-list is the data structure used for implementing this program. The basic principle behind the implementation of this chat stall management is Queues.

The costumer who came first should be served first hence queues data structure is used to implement the program.

When we execute the program, a menu will appear which provides the options of

1. Taking an order from the costumer, in which it again displays some of the chats that can be ordered. The order placed will be inserted at the rear end so that it forms a queue.
2. The get bill feature for generating bill.
3. Accept payment feature to accept payment.
4. Displays the current orders in display all records option which should to be served/ already done to the costumer. If there are no orders then it displays blank. It displays the names of the costumers to whom the item has to be given in particular order.
5. Billing option which asks for what are all the items purchased by the costumer and bills accordingly.. That will be the amount that the shop-keeper must take from the costumer. While billing only the feedback will be requested from the costumer.

**Output:**

Enter the date(dd/mm/yy) : 25/09/18

Enter

1.TO ORDER

2.TO GET BILL

3.TO CHECK ALL RECORDS

4.ACCEPT PAYMENT

5.EXIT

1

Please enter your name : siddesh

The items available are :

KACHORI : Rs.12

SAMOSA : Rs.12

VADAPAV : Rs.15

Enter the number of items you like...

KACHORI 1

SAMOSA 1

VADAPAV 1

The current order is of : siddesh on 25/09/18

KACHORI : 1

SAMOSA : 1

VADAPAV : 1

The TOTAL is : 39

Enter

1.TO ORDER

2.TO GET BILL

3.TO CHECK ALL RECORDS

4.ACCEPT PAYMENT

5.EXIT

2

Enter the name of the person whose bill to be generated : siddesh

The current order is of : siddesh on 25/09/18

KACHORI : 1

SAMOSA : 1

VADAPAV : 1

The TOTAL is : 39

Enter

1.TO ORDER

2.TO GET BILL

3.TO CHECK ALL RECORDS

4.ACCEPT PAYMENT

5.EXIT

3

DATE NAME KACHORI SAMOSA VADAPAV TOTAL PAID

25/09/18 siddesh 1 1 1 39 0

Enter

1.TO ORDER

2.TO GET BILL

3.TO CHECK ALL RECORDS

4.ACCEPT PAYMENT

5.EXIT

4

Enter the name of the person who is paying the bill : siddesh

The current order is of : siddesh on 25/09/18

KACHORI : 1

SAMOSA : 1

VADAPAV : 1

The TOTAL is : 39

The amount paid is : 0

The total amount to be paid is : 39

The total gst to be paid is : 1.95

total=40.95

Enter the amount payed : 41

Enter

1.TO ORDER

2.TO GET BILL

3.TO CHECK ALL RECORDS

4.ACCEPT PAYMENT

5.EXIT

**Siddaganga Institute of Technology, Tumakuru-3**

**Department of Computer Science and Engineering**

**Assessment for III semester Data structures lab Open Ended problem**

**Title: IMPLEMENTATION OF CHAT STALL MANAGEMENT**

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| **Sl. No.** | **Name** | **USN** | **Evaluation Criteria** | | | | **Total**  **(25)** | **Signature** |
| **Complexity of problem chosen**  **(5)** | **Implementation**  **(10)** | **Coding Standards followed**  **(5)** | **Report**  **(5)** |
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