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Project Report
Restaurant
Management System

Group 7:

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Basic Details:

Intro:

Restaurant Management System is a program that automatically prints you the bill of the customer. Basically, we just have to give some inputs and then it will print our desired result.

Motivation:

The motivation for making this project was to make restaurant management system easier, advanced and efficient. We are well aware of the fact that managing restaurant in an old or traditional fashion can be costly, time consuming and old fashioned. To make overall system efficient we wanted to make this project. Here in this project wanted to serve the customer with their invoices based on what they have ordered in a cool way. **Features:**

Our program of restaurant management system can basically perform three operations which are following:

- Generate the invoice of current customer which includes preparing billing info
- Search invoice of any previous customer according to our desire
- Keep tracking of sales

```
=====MHZ . RETSARAUNT=====

Please select your desired operation:

1.Generate Invoice
2.Show all Invoices
3.Search Invoices
4.Exit

Your choice: _
```

Advantages:

- Decreases Workload
- Saves time
- Customers can easily order food
- Can easily track sale information

MHZ.Restaurant		

Date:Dec 24 2022		
Invoice To:asad		

Items	Qty	Total

burger	2	500.00

SubTotal		500.00
Discount @10%		50.00

NetTotal		450.00
CGST @9%		40.50
SGST @9%		40.50

Grand Total		531.00

Code:

```
#include <stdio.h>
#include<string.h>
#include <stdlib.h>

struct items{
char item[20];
float price;
int qty;
};

struct orders{
char customer[50];
char date[50];
int numofitems;
struct items itm[50];
};

//functions to generate bills
void generateBillHeader(char name[50],char date[30]){
printf("\n\n");
printf("\t\t\t\t\tMHZ.Restaurant");
printf("\n\t\t\t\t\t-----");
printf("\nDate:%s",date);
printf("\nInvoice To:%s",name);
printf("\n");
printf("-----\n");
printf("Items\t\t");
printf("Qty\t\t");
printf("Total\t\t");
printf("\n-----");
printf("\n\n");
}

void generateBillBody(char item[30],int qty, float price){
printf("%s\t\t",item);
printf("%d\t\t",qty);
printf("%.2f\t\t",qty*price);
printf("\n");
}
```

```

void generateBillFooter(float total){
printf("\n");
float dis=0.1*total;
float netTotal=total-dis;
float cgst=0.09*netTotal,grandTotal=netTotal+2*cgst;
printf("-----\n");
printf("SubTotal\t\t\t %.2f ",total);
printf("\nDiscount @10%\t\t\t%.2f","%",dis );
printf("\n\t\t\t\t-----");
printf("\nNetTotal\t\t\t\t%.2f",netTotal );
printf("\nCGST @9%\t\t\t\t%.2f","%",cgst);
printf("\nSGST @9%\t\t\t\t%.2f","%",cgst);
printf("\n-----");
printf("\nGrand Total\t\t\t\t%.2f",grandTotal);
printf("\n-----");
}
int main()
{
float total;
int opt,n,numofitems;
struct orders ord;
struct orders order;
char savebill='y',contFlag='y';
char name[50];
FILE *fp;
//dashboard
while(contFlag=='y'){
system("clear");
float total=0;
int invoicefound=0;
printf("\t=====MHZ . RETSARAUNT=====");
printf("\n\n Please select your desired operation:");
printf("\n\n1.Generate Invoice");
printf("\n\n2.Show all Invoices");
printf("\n\n3.Search Invoices");
printf("\n\n4.Exit");

printf("\n\nYour choice:");
scanf("%d",&opt);
printf("\nYou have chosen %d:",opt);
fgetc(stdin);
switch (opt){
case 1:
system("clear");
// ye baad me dekhna hai

```

```

        printf("\n\nPlease Enter the name of costumer:\t");
        fgets(ord.customer,50,stdin);
        ord.customer[strlen(ord.customer)-1]=0;
        strcpy(ord.date,__DATE__);
        printf("\n\nPlease Enter the number of items:\t");
        scanf("%d",&n);
        ord.numofitems=n;
for(int i=0;i<n;i++){
    fgetc(stdin);
    printf("\n\n");
    printf("Please enter the item %d:\t",i+1);
    fgets(ord.itm[i].item,20,stdin);
    ord.itm[i].item[strlen(ord.itm[i].item)-1]=0;
    printf("Please enter the quantity:\t");
    scanf("%d",&ord.itm[i].qty);
    printf("Please enter the unit price:\t");
    scanf("%f",&ord.itm[i].price);
    total+=ord.itm[i].qty*ord.itm[i].price;
}

generateBillHeader(ord.customer,ord.date);
for(int i=0;i<ord.numofitems;i++){
    generateBillBody(ord.itm[i].item,ord.itm[i].qty,ord.itm[i].price);
}
generateBillFooter(total);

printf("\n Do you want to save the invoice[y/n]:\t");
scanf("%s",&savebill);
if(savebill=='y'){
    fp=fopen("RestaurantBill.dat","a+");
    fwrite(&ord,sizeof(struct orders),1,fp);
    if(fwrite!=0)
        printf("\nSuccessfully saved");
    else
        printf("\n Error Saving");
    fclose(fp);
}

break;
case 2:
    system("clear");
    fp=fopen("RestaurantBill.dat","r");
    printf("\n*****YOUR PREVIOUS INVOICES*****\n");
    while(fread(&order,sizeof(struct orders),1,fp)){

```

```

        float tot=0;

generateBillHeader(order.customer,order.date);
for( int i=0;i<order.numofitems;i++){
    generateBillBody(order.itm[i].item,order.itm[i].qty,order.itm[i].price);
    tot+=order.itm[i].qty*order.itm[i].price;
}
generateBillFooter(tot);
}
fclose(fp);
break;
case 3:
    printf("\nEnter the name of the customer:\t");
    // fgetc(stdin);
    fgets(name,50,stdin);
    name [strlen(name)-1]=0;
    system("clear");
    fp=fopen("RestaurantBill.dat","r");
    printf("\t*****INVOICE OF %s*****\n",name);
    while(fread(&order,sizeof(struct orders),1,fp)){
        float tot=0;
        if(!strcmp(order.customer,name)){
            generateBillHeader(order.customer,order.date);
for( int i=0;i<order.numofitems;i++){
    generateBillBody(order.itm[i].item,order.itm[i].qty,order.itm[i].price);
    tot+=order.itm[i].qty*order.itm[i].price;
}
            generateBillFooter(tot);
            invoicefound=1;
        }
    }
    if(!invoicefound){
        printf("Sorry the invoice for %s does not exists ",name);
    }
    fclose(fp);
    break;
case 4:
    printf("\n\t\t BYE BYE:)\n\n");
    exit(0);
    break;
default:
    printf("Sorry Invalid Option");
    break;

```

```
    }  
    printf("Do you want to perform another operation?[y/n]:\t");  
    scanf("%s",&contFlag);  
}  
printf("\n\t\t BYE BYE:)\n\n");  
printf("\n\n");  
    return 0;  
  
}
```