

An abstract graphic featuring three blue concentric circles of varying sizes. Two thin blue lines originate from the top left and extend diagonally across the page, passing behind the circles. The circles are positioned in the top right and bottom right areas, while the text is on the left side.

# **Restaurant Management System**

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# **ABOUT THE PROJECT**

This project is designed to be used in a restaurant using structures and files. It consists of 4 main operations which are:

Login: - It enters the details about the user such as the login id, login password and id type.

Menu: - It enters the items of the menu through the administrator along with the prices. It displays the menu in a different function and it modifies the menu in another function.

Order: - It first displays the entire menu the user can select from the menu and place an order.

Stock: - the stock is managed by the administrator and it can modify the stock according to the input.

# MAIN TOPICS

## **Structures:**

Stock: - This structure is used for handling stock details which includes item name and quantity.

Login: -This structure is used for handling login details which includes login Id, password and account type.

Date: - This structure is used for handling date which includes day, month and year.

Order: - This structure is used for handling order details which includes name, phone number, item code, price and date.

Menu: - This structure is used for handling menu details which includes dish name, code and price.

## **Functions:**

Elogin() :- function used for entering the login details

Emenu() :- function used for entering the menu details

Eorder() :- function used for entering the order details

Estock() :- function used for entering the stock details

Main() :- this function is used to handle all the functions

Momenu() :- function used for modifying the menu details

Mstock() :- function used for modifying the stock details

Sellogin() :- function used to search from login details

Shlogin() :- function used to show login details

Shmenu() :- function used to show menu details

Shorder() :- function used to show order details

Shstock() :- function used to show stock details

Sshorder() :- function used to show particular order

Xit() :- function used to exit the program

### **Files:**

Login: - This file saves all the data related to login which includes login Id, password and account type.

Menu: - This file saves all the data related to the menu items which includes dish name, code and price.

Stock: - This file saves all the data related to the stock which includes item name and quantity.

Order: - This file saves all the data related to the orders which includes name, phone number, item code, price and date.

## HEADER FILES USED

**#include <stdio.h>:** is a statement which tells the compiler to insert the contents of stdio at that particular place.

Stdio.h is the header file for standard input and output. This is useful for getting the input from the user (Keyboard) and output result text to the monitor (screen). Without this header file, one cannot display the results to the users on the screen or cannot input the values through the keyboard.

**#include <conio.h>:** the conio.h header file contains certain library functions that let us perform input and output operation.

Functions like printf (), getch () and scanf () need “#include<conio.h>” header file to be included for us to use them in our program.

**#include <string.h> :** It is the header in the C standard library for the C programming language which contains macro definitions, constants and declarations of functions and types used not only for string handling but also various memory handling functions.

Functions like `str.cmp ( )` need “`#include <string.h>`” header file to be included for us to use them in our program.

**#include <dos.h>** : Dos.h header file of C language contains functions for handling interrupts, producing sound, date and time functions etc.

Functions like “sleep” need “`#include <dos.h>`” header file to be included for us to use them in our program.

## Code Snippets

```
#include <stdio.h>
#include <conio.h>
#include <string.h>
#include <dos.h>
#include <time.h>
struct stock
{
    char in[100];           //item name
    int sn;                 //stock quantity
} s[100];

struct login
{
    char lid[30];           //Login id
    char pwd[30];           //password
    char type;              //Type of user administrator (a) or normal user (u)
} l[100];

struct date
{
    int day;
    int month;
    int year;
} d[100];
```

```

117 void shstock()
118 {
119     FILE *fp;
120     int i,j,a,cou=0;
121     char cha,id[20],pwd[20];
122     fp = fopen("stock.txt","r");
123     if(fp == NULL)
124     {
125         printf("\nerror in file login.\n");
126         getch();
127     }
128     int coun=0;
129     cha=' ';
130     while(cha!=EOF)
131     {
132         fscanf(fp,"%s",&s[coun].in);
133         fscanf(fp,"%d",&s[coun].sn);
134         cha=fgetc(fp);
135         coun++;
136     }
137     printf("\n                                Item Details\n\n");
138     printf("+-----+\n");
139     printf("|Item Name                                Item Quantity|\n");
140     printf("+-----+\n");
141     while(cou<coun)
142     {
143         printf("%s",s[cou].in);
144         if(cou!=coun)
145         {
146             printf("\t\t\t\t\t%d\n",s[cou].sn);
147         }
148         cou++;
149     }
150     printf("\n+-----+\n");
151     fclose(fp);
152 }

```



```

318
319 void shmenu()
320 {
321     FILE *fp;
322     int i,j,a,cou=0;
323     char cha,id[20],pwd[20];
324     fp = fopen("menu.txt","r");
325     if(fp == NULL)
326     {
327         printf("\nerror in file login.\n");
328         getch();
329     }
330     int coun=0;
331     cha=' ';
332     while(cha!=EOF)
333     {
334         fscanf(fp,"%s",&m[coun].name);
335         fscanf(fp,"%d",&m[coun].co);
336         fscanf(fp,"%d",&m[coun].ra);
337         cha=fgetc(fp);
338         coun++;
339     }
340     printf("\n                                Menu Details\n\n");
341     printf("+-----+\n");
342     printf("|Dish Name                                Code                                Rate                                |\n");
343     printf("+-----+\n");
344     while(cou<coun)
345     {
346         printf("%s",m[cou].name);
347         printf("\t\t\t\t\t%d",m[cou].co);
348         printf("\t\t\t\t\t%d",m[cou].ra);
349         printf("\n");
350         cou++;
351     }
352     printf("+-----+\n");
353     fclose(fp);
354
355     fscanf(fp,"%s",&l[coun].pwd);
356     fscanf(fp,"%c",&l[coun].type);
357     cha=fgetc(fp);
358     coun++;
359 }
360
361 printf("\n                                Enter the Login ID : ");
362 scanf("%s",&id);
363 printf("\n                                Enter the Login Password : ");
364 fflush(stdin);
365 int y=0;
366 pwd[y]=getch();
367 while(pwd[y]!='\x00')
368 {
369     printf("*");
370     y++;
371     pwd[y] = getch();
372 }
373 pwd[y]='\0';
374 printf("\n");
375 for(i=0;i<coun;i++)
376 {
377     if(strcmp(l[i].lid,id)==0&&strcmp(l[i].pwd,pwd)==0&&(l[i].type=='A' || l[i].type=='a'))
378     {
379         a = 1;
380         break;
381     }
382     else if(strcmp(l[i].lid,id)==0&&strcmp(l[i].pwd,pwd)==0&&(l[i].type=='N' || l[i].type=='n'))
383     {
384         a = 0;
385         break;
386     }
387     else
388         a = 2;
389 }
390 fclose(fp);
391 return a;

```

```
char cha,id[20];
fp = fopen("order.txt","r");
if(fp == NULL)
{
    printf("\nerror in file login.\n");
    getch();
}
int coun=0;
cha=' ';
while(cha!=EOF)
{
    fscanf(fp,"%s",&o[coun].name);
    fscanf(fp,"%s",&o[coun].pno);
    fscanf(fp,"%d",&o[coun].c);
    fscanf(fp,"%d",&o[coun].r);
    fscanf(fp,"%d/%d/%d",&o[coun].d.day,&o[coun].d.month,&o[coun].d.year);
    cha=fgetc(fp);
    coun++;
}
printf("\n                Selected Customer Details\n\n");
printf("Enter the Name for which you want to search data : ");
scanf("%s",&id);
printf("+-----+\n");
printf("|Name      Phone No       Code   Rate     Date      |\n");
printf("+-----+\n");
while(cou<coun)
{
    if(strcmp(o[cou].name,id)==0)
    {
        printf("%s\t",o[cou].name);
        printf("%s\t",o[cou].pno);
        printf("%d\t",o[cou].c);
        printf("%d\t",o[cou].r);
        printf("%d/%d/%d",o[cou].d.day,o[cou].d.month,o[cou].d.year);
        printf("\n");
        a++;
    }
}
printf("\t\tYou need to prove that you are a valid user or administrator.\n\n\n");
a = slogin();
if(a==0)
{
    printf("\n\t\t\t\t\tYou are Normal User.\n");
    ch = getch();
    if(ch!='&')
    {
        tapri:
        system("cls");
        system("COLOR 30");
        system("COLOR B1");
        printf("+-----+\n");
        printf("|          Enter 1 For Ordering The Food           |\n");
        printf("|          Enter 2 For Viewing The Orders           |\n");
        printf("|          Enter 3 For Viewing The Stock            |\n");
        printf("|          Enter 4 For Viewing The Menu             |\n");
        printf("|          Enter 5 For Back                          |\n");
        printf("|          Enter 6 For Exit                         |\n");
        printf("+-----+\n");
        printf("        Enter Your Choice : ");
        scanf("%d",&an);
        if(an==1||an==2||an==3||an==4)
        {
            system("cls");
            system("COLOR 40");
            system("COLOR B5");
            switch(an)
            {
                case 1 : eorder(o);
                        getch();
```

```

921 else if(a==1)
922 {
923     printf("\n\t\t\t\t\tYou are a administrator.\n");
924     ch = getch();
925     {
926         qwerty:
927         system("cls");
928         system("COLOR 30");
929         system("COLOR B1");
930         printf("+-----+\n");
931         printf("|           Enter 1 For Entering The Stock           |\n");
932         printf("|           Enter 2 For Viewing The Stock           |\n");
933         printf("|           Enter 3 For Modifying The Stock         |\n");
934         printf("|           Enter 4 For Entering The Menu           |\n");
935         printf("|           Enter 5 For Showing The Menu            |\n");
936         printf("|           Enter 6 For Modifying The Menu          |\n");
937         printf("|           Enter 7 For Entering The Login Details  |\n");
938         printf("|           Enter 8 For Showing The Login Details  |\n");
939         printf("|           Enter 9 For Entering The Order Details  |\n");
940         printf("|           Enter 10 For Searching a particular order |\n");
941         printf("|           Enter 11 For Viewing all the orders     |\n");
942         printf("|           Enter 12 For Back                        |\n");
943         printf("|           Enter 13 For Exit                       |\n");
944         printf("+-----+\n");
945         printf("        Enter Your Choice : ");
946         scanf("%d",&an);
947         if(an==1||an==2||an==3||an==4||an==5||an==6||an==7||an==8||an==9||an==10||an==11||an==12||an==13)
948         {
949             system("cls");
950             system("COLOR 40");
951             system("COLOR B5");
952             switch(an)

```

```

        case 12 : for(i=1;i<=30;i++)
        {
            Sleep(10);
            printf("*");
        }
        printf(" Logging You Out ");
        for(i=1;i<=30;i++)
        {
            Sleep(10);
            printf("*");
        }
        goto x;
        break;
        case 13 : xit();
        printf("\n\n");
        printf("***** THANK YOU *****\n");
        printf("\n\n");
        printf("***** Please come again *****\n\n\n");
    }
}
else
{
    printf("\n\t\t\t\t\tYou are not a valid user.\n\t\t\t\t\tIf you want to login again, Enter Y for Yes : ");
    fflush(stdin);
    scanf("%c",&ch);
    if(ch=='y' || ch=='Y')
    {
        system("cls");
        goto x;
    }
}

```

# Output Photos

## Item Details

Item Name	Item Quantity
Almonds	455
Matar	10
Honey	10
Fruits	100
Chicken	12
Egg	45
Coffee	2
Fish	23
Cashew	8

## Menu Details

Dish Name	Code	Rate
egg	151	8
pizza	150	240
Maggi	101	45
Dosa	102	60
Samosa	103	20
Chienia	105	180
Patika	106	150
Kachori	109	30
Pasta	110	90

Login Details		
Login Id	Password	Type
Ayush	Jain1234	A
Hemant	pass1245	N
Salema	Password	A

Order Details				
Name	Phone No	Code	Rate	Date
Ayush	9876543210	105	180	19/9/2019
Keshav	0123456789	110	90	19/9/2019
Ayush	9876543210	102	60	19/9/2019
Om	5478963210	150	240	19/9/2019
Priyal	1234578960	151	8	19/9/2019
Yash	3578964125	101	45	19/9/2019
Anmol	542136987	105	180	19/9/2019

## **Conclusion**

To summarize, this project is about managing restaurants. It will be helpful in many restaurants as it makes it easier for the administrators, waiters as well as the customers.