

```

#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<string.h>
#include<ctype.h>
#include<windows.h>

#define ANS 15
#define ACS 4
COORD coord= {0,0}; // this is global variable
void gotoxy(int x,int y)
{
    coord.X=x;
    coord.Y=y;
    SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE),coord);
}
/*declaration of checking functions*/
void c_code(char[]);
int check(char[]);

/*structure declaration*/
typedef struct
{
    char name[ANS],code[ACS];
    float rate;
    int quantity;
} rec;
rec item;

/*declaration of display functions*/
void curser(int);
void dbill();
void d_mainmenu();
void display(rec *,int,int);
void window(int,int,int,int);
void dis_con();
void d_search();
void highlight(int,int);

/*declaration of main menu functions*/
void bill() ;
void edit();
void add();
void del();
void exit();

/*declaration of display submenu functions*/
void d_code();
void d_rate();
void d_quan();

```

```

void d_all();

/*start of main*/
int main()
{
    d_mainmenu();
    return 0;
}

void d_mainmenu()
{
    int i;
    char ch;
    const char *menu[] = {"    Calculate Bill", "    Add Goods", "    Edit Goods", "
Display All ", "    Search", "    Delete Goods", "    Exit"};
    system("cls");
    //textbackground(11);
    //textcolor(0);
    //_setcursortype(_NOCURSOR);
    window(25,50,20,32);
    gotoxy(33,18);
    printf("MAIN MENU");
    for (i=0; i<=6; i++)
    {
        gotoxy(30,22+i+1);
        printf("%s\n\n\n",menu[i]);
    }
    curser(7);
}

void d_search()
{
    char ch;
    int i;
    const char *menu[] = {"    By Code", "    By Rate", "    By Quantity", "    Back to
main menu"};
    system("cls");
    //textbackground(11);
    //textcolor(0);
    window(25,50,20,32);
    gotoxy(33,18);
    printf("SEARCH MENU");
    for (i=0; i<=3; i++)
    {
        gotoxy(30,22+i+1);
        printf("%s\n\n\n",menu[i]);
    }
    curser(4);
}

```

```

/*function for cursor movement*/
void curser(int no)
{
    int count=1;
    char ch='0';
    gotoxy(30,23);
    while(1)
    {
        switch(ch)
        {
            case 80:
                count++;
                if (count==no+1) count=1;
                break;
            case 72:
                count--;
                if(count==0) count=no;
                break;
        }
        highlight(no,count);
        ch=getch();
        if(ch=='\r')
        {
            if(no==7)
            {
                if (count==1) bill() ;
                else if(count==2) add();
                else if(count==3) edit();
                else if (count==4) d_all();
                else if (count==5) d_search();
                else if (count==6) del();
                else    exit(0);
            }
            if(no==4)
            {
                if (count==1) d_code();
                else if (count==2)d_rate();
                else if (count==3) d_quan();
                else d_mainmenu();
            }
        }
    }
}

```

```

void highlight(int no,int count)
{
    if (no==4)
    {
        //textbackground(11);
        //textcolor(0);
    }
}

```

```

gotoxy(30,23);
printf("    By Code          ");
gotoxy(30,24);
printf("    By Rate           ");
gotoxy(30,25);
printf("    By Quantity        ");
gotoxy(30,26);
printf("    Back to main menu");
//textcolor(0);
//textbackground(2);
switch (count)
{
case 1:
    gotoxy(30,23);
    printf(" - By Code          ");
    break;
case 2:
    gotoxy(30,24);
    printf(" - By Rate           ");
    break;
case 3:
    gotoxy(30,25);
    printf(" - By Quantity        ");
    break;
case 4:
    gotoxy(30,26);
    printf(" - Back to main menu");
    break;
}
}

if(no==7)
{
    //textbackground(11);
    //textcolor(0);
    gotoxy (30,23);
    printf("    Calculate Bill ");
    gotoxy (30,24);
    printf("    Add Goods        ");
    gotoxy (30,25);
    printf("    Edit Goods       ");
    gotoxy (30,26);
    printf("    Display All      ");
    gotoxy (30,27);
    printf("    Search           ");
    gotoxy (30,28);
    printf("    Delete Goods     ");
    gotoxy (30,29);
    printf("    Exit             ");
    //textcolor(0);

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```

//textbackground(2);
switch(count)
{
case 1:
    gotoxy (30,23);
    printf(" - Calculate Bill ");
    break;
case 2:
    gotoxy (30,24);
    printf(" - Add Goods      ");
    break;
case 3:
    gotoxy (30,25);
    printf(" - Edit Goods      ");
    break;
case 4:
    gotoxy (30,26);
    printf(" - Display All      ");
    break;
case 5:
    gotoxy (30,27);
    printf(" - Search           ");
    break;
case 6:
    gotoxy (30,28);
    printf(" - Delete Goods     ");
    break;
case 7:
    gotoxy (30,29);
    printf(" - Exit             ");
    break;
}
}

void bill()
{
    char x[4]= {0};
    int j=29,q=0,size=0,i=1;
    float total=0,gtotal=0;
    FILE *file;
    file=fopen("record.txt","r+b");
    rewind(file);
    system("cls");
    dbill();
    gotoxy(26,15);
    printf("enter  \"end\" to finish input");
    while(1)
    {
        gotoxy(25,18);

```

```

printf("                ");
gotoxy(25,19);
printf("                ");
gotoxy(25,18);
printf("enter item code:");
scanf("%s",x);
if(strcmp(x,"end")==0)
    break;
gotoxy(25,19);
printf("enter quantity:");
scanf("%d",&q);
rewind(file);
while(fread(&item,sizeof(item),1,file))
{
    if((strcmp(item.code,x)==0))
    {
        total=item.rate*q;
        gotoxy(11,j);
        printf("%4d",i);
        printf("%9s",item.name);
        printf("%13d",q);
        printf("%15.2f",item.rate);
        printf("%13.2f",total);
        gttotal=gttotal+total;
        size=sizeof(item);
        item.quantity=item.quantity-q;
        j+=2;
        i++;
        fseek(file,-size,SEEK_CUR);
        fwrite(&item,sizeof(item),1,file);
        break;
    }
}
}
if(gttotal!=0)
{
    gotoxy(30,j+5);
    printf("TOTAL AMOUNT = NRs. %6.2f",gttotal);
}
fclose(file);
getch();
d_mainmenu();
}
/*function to display bill window*/
void dbill()
{
    int i;
    gotoxy(20,10);
    //;
    for (i=1; i<=10; i++)

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```

        printf("*");
        printf(" * FASHION WEAR * ");
        for (i=1; i<=10; i++)
            printf("*");
        printf("\n\n");
        gotoxy(30,11);
        printf("Departmental Store");
//textcolor(1);
        gotoxy(32,25);
        printf("CUSTOMER'S BILL" );
//textcolor(8);
        gotoxy(13,27);
        printf("SN.      Item Name      Quantity      Rate      Total");

    }
/*function to add records*/
void add ()
{
    FILE *file;
    char y[ACS],x[12];
    system("cls");
//textbackground(11);
//textcolor(0);
    gotoxy(25,25);
    printf("Enter new record(Y/N)?");
    while(toupper(getche())=='Y')
    {
        system("cls");
        file=fopen("record.txt","ab");
        c_code(y);
        strcpy(item.code,y);
        gotoxy(22,28);
        printf("Enter rate of the item:");
        scanf("%f",&item.rate);
        gotoxy(22,30);
        printf("Enter quantity of the item:");
        scanf("%d",&item.quantity);
        gotoxy(22,32);
        printf("Enter name of the item:");
        scanf("%s",item.name);
        fseek(file,0,SEEK_END);
        fwrite(&item,sizeof(item),1,file);
        fclose(file);
        gotoxy(22,34);
        printf("Enter new record(Y/N)?");
    }
    d_mainmenu();
}

```

```

/*function to check availability of code*/
void c_code(char y[])
{
    int flag;
    FILE *file;
    file=fopen("record.txt","rb");
    while(1)
    {
        system("cls");
        window(20,58,23,36);
        gotoxy(32,18);
        printf(" ADD ARTICLES ") ;
        flag=1;
        rewind(file);
        gotoxy(22,25);
        printf("Enter new code of the article:");
        scanf(" %[^\\n]",y);
        while(fread(&item,sizeof(item),1,file)==1)
        {
            if (strcmp(y,item.code)==0)
            {
                flag=0;
                gotoxy(26,30);
                printf("code already exists");
                gotoxy(29,32);
                printf("enter again");
                getch();
                break;
            }
        }
        if (flag==1)
            break;
    }
}

```

```

/*function for editing*/
void edit()
{
    int flag=0,choice;
    char x[ACS],y[ACS];
    FILE *file;
    int size;
    system("cls");
    //textcolor(0);
    //textbackground(11);
    window(20,63,20,46);
    gotoxy(35,18);
    printf("EDIT RECORDS");
    ;
    gotoxy(25,23);

```



```

printf("enter item code: ");
scanf("%s",x);
flag=check(x);
if(flag==0)
{
    file=fopen("record.txt","r+b");
    rewind(file);
    while (fread(&item,sizeof (item),1,file))
    {
        if(strcmp(item.code,x)==0)
        {
            //textcolor(0);
            gotoxy(25,27);
            printf("name      = %s",item.name);
            gotoxy(25,28);
            printf("code      = %s",item.code);
            gotoxy(25,29);
            printf("rate      = %g",item.rate);
            gotoxy(25,30);
            printf("quantity  = %d",item.quantity);
            gotoxy(25,32);
            printf("Do you want to edit this record?(y/n):");
            fflush(file);
            if(toupper(getche())=='Y')
            {
                //textcolor(0);
                gotoxy(25,34);
                printf("1- edit name ");
                gotoxy(25,35);
                printf("2- edit code ");
                gotoxy(25,36);
                printf("3- edit rate ");
                gotoxy(25,37);
                printf("4- edit quantity ");
                gotoxy(25,39);
                printf(" enter your choice(1, 2, 3, 4) ");
                scanf("%d",&choice);
                switch(choice)
                {
                    case 1:
                        system("cls");
                        window(23,48,20,40);
                        gotoxy(35,18);
                        printf("EDIT RECORDS");
                        gotoxy(25,24);
                        printf(" enter new name: ");
                        scanf("%s",item.name);
                        size=sizeof(item);
                        fseek(file,-size,SEEK_CUR);
                        fwrite(&item,sizeof(item),1,file);

```

```

        break;
    case 2:
        system("cls");
        window(23,65,20,40);
        gotoxy(35,18);
        printf("EDIT RECORDS");
        gotoxy(25,24);
        c_code(y);
        strcpy(item.code,y);
        size=sizeof(item);
        fseek(file,-size,SEEK_CUR);
        fwrite(&item,sizeof(item),1,file);
        break;
    case 3:
        system("cls");
        window(23,65,20,40);
        gotoxy(35,18);
        printf("EDIT RECORDS");
        gotoxy(25,24);
        printf(" enter new rate: ");
        scanf("%f",&item.rate);
        size=sizeof(item);
        fseek(file,-size,SEEK_CUR);
        fwrite(&item,sizeof(item),1,file);
        break;
    case 4:
        system("cls");
        window(23,65,20,40);
        gotoxy(35,18);
        printf("EDIT RECORDS");
        gotoxy(25,24);
        printf(" enter new quantity: ");
        scanf("%d",&item.quantity);
        size=sizeof(item);
        fseek(file,-size,1);
        fwrite(&item,sizeof(item),1,file);
        break;
    }
    gotoxy(27,30);
    printf("--- item edited---");
    break;
}
}
}
}
if (flag==1)
{
    gotoxy(32,30);
    printf("Item does not exist.");
    gotoxy(36,32);

```

```

        printf("TRY ABGAIN");
    }
    getch();
    fclose(file);
    d_mainmenu();
}

/*function to display all records*/
void d_all()
{
    int i,j=1;
    FILE *file;
    dis_con();
    file=fopen("record.txt","rb");
    rewind(file);
    i=26;
    fflush(file);
    while(fread(&item,sizeof(item),1,file))
    {
        display(&item,i,j);
        i++;
        j++;
        if ((j%20)==0)
        {
            gotoxy(27,47);/*textcolor(0)*/;
            printf("Press any key to see more.....");
            getch();
            system("cls");
            dis_con();
            i=26;
            continue;
        }
    }
    getch();
    if (i==26)
    {
        gotoxy(24,30);
        printf("-- no articles found --");
    }
    getch();
    fclose(file);
    d_mainmenu();
}

/*function to display by quantity*/
void d_quan()
{
    int i,j=1;
    int a,b;
    FILE *file;

```

```

dis_con();
file=fopen("record.txt","rb");
rewind(file);
i=26;
gotoxy(16,20);
printf("Enter lower range: ");
scanf("%d",&a);
gotoxy(16,21);
printf("Enter upper range:");
scanf("%d",&b);
fflush(file);
while(fread(&item,sizeof(item),1,file))
{
    if((item.quantity>=a)&&(item.quantity<=b))
    {
        display(&item,i,j);
        i++;
        j++;
        if ((j%20)==0)
        {
            gotoxy(27,47);
            printf("Press any key to see more.....");
            getch();
            system("cls");
            dis_con();
            i=26;
            continue;
        }
    }
}
getch();
if (i==26)
{
    gotoxy(28,30);
    printf(" No items found.");
}
getch();
d_search();
fclose(file);
}

```

```

/*function to display by rate*/
void d_rate()
{
    int i,j=1;
    float a,b;
    FILE *file;
    dis_con();
    file=fopen("record.txt","rb");
    rewind(file);
}

```

```

i=26;
gotoxy(16,20);
printf("enter lower range: ");
scanf("%f",&a);
gotoxy(16,21);
printf("enter upper range: ");
scanf("%f",&b);
fflush(file);
while(fread(&item,sizeof(item),1,file))
{
    if((item.rate>=a)&&(item.rate<=b))
    {
        display(&item,i,j);
        i++;
        j++;
        if ((j%20)==0)
        {
            gotoxy(27,47);
            printf("press any key to see more.....");
            getch();
            system("cls");
            dis_con();
            i=26;
            continue;
        }
    }
}
getch();
if (i==26)
{
    gotoxy(28,30);
    printf(" no item found ");
}
getch();
fclose(file);
d_search();
}

```

```

/*function to display by code*/
void d_code()
{
    int i,j=1;
    char x[4]= {0};
    FILE *file;
    dis_con();
    file=fopen("record.txt","rb");
    rewind(file);
    i=26;
    gotoxy(16,20);
    printf("enter item code: ");
}

```

```

scanf("%s",x);
fflush(file);
while(fread(&item,sizeof(item),1,file))
{
    if((strcmp(item.code,x)==0))
    {
        display(&item,i,j);
        i++;
        j++;
        break;
    }
}
if (i==26)
{
    gotoxy(28,30);
    printf("no item found");
}
getch();
fclose(file);
d_search();
}

```

/*function to display window for item display*/

```

void dis_con()
{
    int i;
    system("cls");
    gotoxy(20,10);
    ;
    for (i=1; i<=10; i++)
        printf("*");
    printf(" * FASHION WEAR * ");
    for (i=1; i<=10; i++)
        printf("*");
    printf("\n\n");
    gotoxy(30,11);
    printf("Departmental Store");
    //textcolor(1);
    gotoxy(32,17);
    printf("RECORDS") ;
    //textcolor(8);
    gotoxy(18,23);
    printf ("SN    Item Name    Item Code    Rate    Quantity");
}

```

/*function to display in screen*/

```

void display(rec *item,int i,int j)
{
    gotoxy(16,i);//textcolor(13);
    printf("%4d",j);
}

```

```

        printf("%9s",item->name);
        printf("%12s",item->code);
        printf("%14.2f",item->rate);
        printf("%11d",item->quantity);
    }

/*function to delete records*/
void del()
{
    int flag;
    char x[ANS];
    FILE *file,*file1;
    system("cls");
//textbackground(11);
//textcolor(0);
    window(23,51,25,34);
    gotoxy(29,18);
    printf("DELETE ARTICLES");
    gotoxy(27,27);
    printf("enter item code: ");
    scanf("%s",x);
    flag=check(x);
    if(flag==0)
    {
        file1=fopen("record1.txt","ab");
        file=fopen("record.txt","rb");
        rewind(file);
        while (fread(&item,sizeof (item),1,file))
        {
            if(strcmp(item.code,x)!=0)
                fwrite(&item,sizeof(item),1,file1);
        }
        gotoxy(27,29);
        printf("---item deleted---");
        remove("record.txt");
        rename("record1.txt","record.txt");
    }
    if (flag==1)
    {
        gotoxy(25,29);
        printf("---item does not exist---");
        gotoxy(30,31);
        printf("TRY AGAIN");
    }
    fclose(file1);
    fclose(file);
    getch();
    d_mainmenu();
}

```

```
/*function to check validity of code while editing and deleting*/
```

```
int check(char x[ANS])
{
    FILE *file;
    int flag=1;
    file=fopen("record.txt","rb");
    rewind(file);
    while (fread(&item,sizeof (item),1,file))
    {
        if(strcmp(item.code,x)==0)
        {
            flag=0;
            break;
        }
    }
    fclose(file);
    return flag;
}
```

```
/*function to display box*/
```

```
void window(int a,int b,int c,int d)
{
```

```
    int i;
    system("cls");
    gotoxy(20,10);
    //textcolor(1);
    for (i=1; i<=10; i++)
        printf("*");
    printf(" * FASHION WEAR * ");
    for (i=1; i<=10; i++)
        printf("*");
    printf("\n\n");
    gotoxy(30,11);
    printf("Departmental Store");
    //textcolor(4);
    for (i=a; i<=b; i++)
    {
        gotoxy(i,17);
        printf("\xcd");
        gotoxy(i,19);
        printf("\xcd");
        gotoxy(i,c);
        printf("\xcd");
        gotoxy(i,d);
        printf("\xcd");
    }
```

```
    gotoxy(a,17);
    printf("\xc9");
    gotoxy(a,18);
```



```
printf("\xba");
gotoxy(a,19);
printf("\xc8");
gotoxy(b,17);
printf("\xbb");
gotoxy(b,18);
printf("\xba");
gotoxy(b,19);
printf("\xbc");
//textcolor(4);
for(i=c; i<=d; i++)
{
    gotoxy(a,i);
    printf("\xba");
    gotoxy(b,i);
    printf("\xba");
}
gotoxy(a,c);
printf("\xc9");
gotoxy(a,d);
printf("\xc8");
gotoxy(b,c);
printf("\xbb");
gotoxy(b,d);
printf("\xbc");
//textbackground(11);
//textcolor(0);
}
```