Green University of Bangladesh
Department of Computer Science and Engineering (CSE)

Faculty of Sciences and Engineering

Semester: (Summer, Year:2022), B.Sc. in CSE (Day)

Course Title: Data Structure Lab

Course Code: CSE-106 Section: DA

Lab Project Name: Mobile Store Management System.

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[For Teachers use only: Don't Write Anything inside this box]

Lab Project Status

Marks: …………………………………… **Signature: ....**

Comments: .... **Date: ....**

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Chapter 1
Introduction

1.1 Introduction

Mobile store management System is a software solution for tracking and managing Mobile data. (M.S.M.S) is specifically designed for mobile's basic information settings, and its many features enable shop's efficient functioning on a daily basis. The computerization of the mobile record will improve the efficiency and reduce human stress, and also indirectly improving the human recourses. This system helps the user to easily access through all the information about mobiles.

1.2 Design Goals/Objective

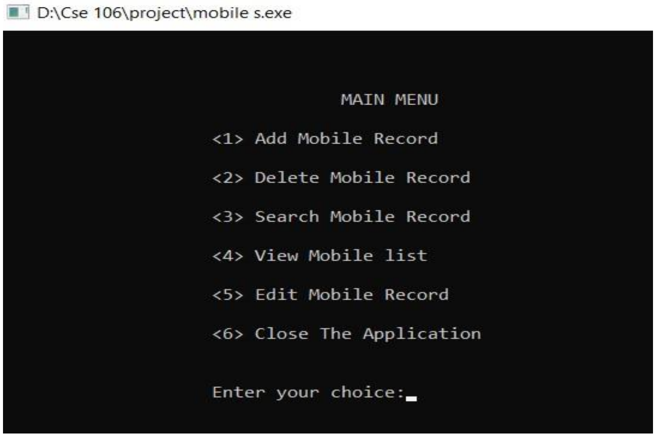
- The main focus of this project is to reduce time and lessen human efforts.
- To provide a user-friendly environment where a user can be serviced better easy.
- To gathers all the valuable mobile-related information on a single platform, enables quick retrieval of essential data, and filters their availability by the access level.
- To keep all the information organized and keep them in a batter place, and reduce the chance of mistake.

Chapter 2

2.1 Mobile store management System

The Mobile Store Management System I made using C program will be look like this.

2.1.1 Interface



```
D:\Cse 106\project\mobile s.exe

                    MAIN MENU
           <1> Add Mobile Record
           <2> Delete Mobile Record
           <3> Search Mobile Record
           <4> View Mobile list
           <5> Edit Mobile Record
           <6> Close The Application

           Enter your choice:_
```

Figure 2.1: S.R.S.

2.2 Algorithm

Step 1: Start.

Step 2: Declare a Structure data type named staff to store different types of variables under a single datatype.

Step 3: Declare 4-character type array named as name [], ID [], available [], stname [].

Step4: And we use system(“CLS”) to clear the output box.

Step 5: In the main function we show users the option which he wants to work on.

- 1 for Add mobile
- 2 for Delete Mobile.
  - 3 for Search Mobile List.
  - 4 for View Mobile List.
- 5 for Modify Mobile list.

- 6 to close application.

Step 6: Get a choice from users.

Step 7: Use a switch case with the value from users.

Step 8: case ‘1’ then call addstaff() function for add data and then break.

Step 9: case ‘2’ then call deletestaff() function for delete data and then break.

Step 10: case ‘3’ then call searchstaff() function for search data and then break.

Step 11: case ‘4’ then call viewstaff() function for view data and then break.

Step 12: case ‘5’ then call editstaff() function for edit data and then break.

Step 13: case ‘6’ close the application:

Step 14: default (“Invalid input. Please try again.”); then break;

Step 15: Named a function called addstaff().

Step 16: In the definition of the function, We get the information of a mobile’s name, ID, quantity, price, availability from users using gets() library function

Step 17: Increase I++

Step 18: Named function called deletestaff().

Step19: In the definition of the function, we read the name or id to check that information.

Step 20: If any of the information match the function will clear the value in that variable by remove () function.

Step 21: Named a function called searcstaff ().

Step 22: In the definition of the function, we read the information about that mobile and then search by Id or Name. If those information match any of the value in the variable, then print the mobile is available. And if the information didn’t match then it will print
that “The Search Information not found on the record”

Step 23: Named a function called viewstaff ().

Step 24: In the definition of the function, we show all the value we get from users. By opening the file Mobile list.
Print Brand, Id, mobile name, Availability, Quantity, Price.

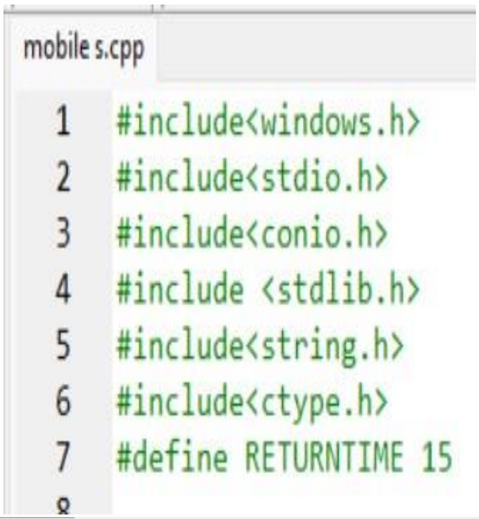
Step 25: Named a function called editstaff().

Step 26: In the definition of the function, read name or ID that if it’s match any of the mobile’s information. Then update the information by getting new value from user.

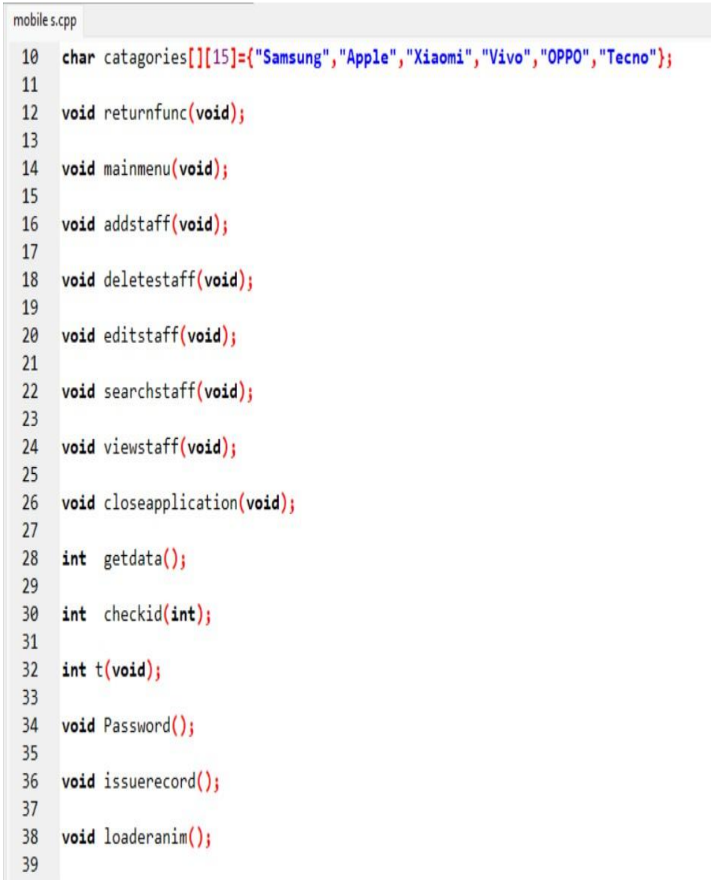
Step27: Declare a return function to return all information about mobile to the main function.

Step 28: End.

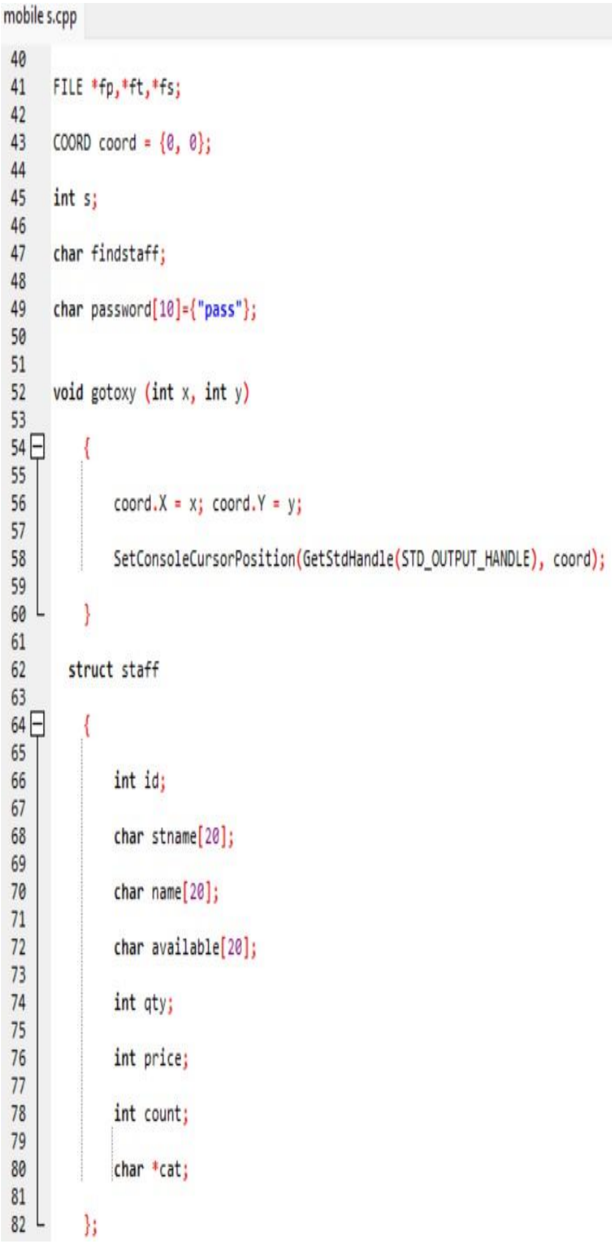
2.3 Implementation of the Project:



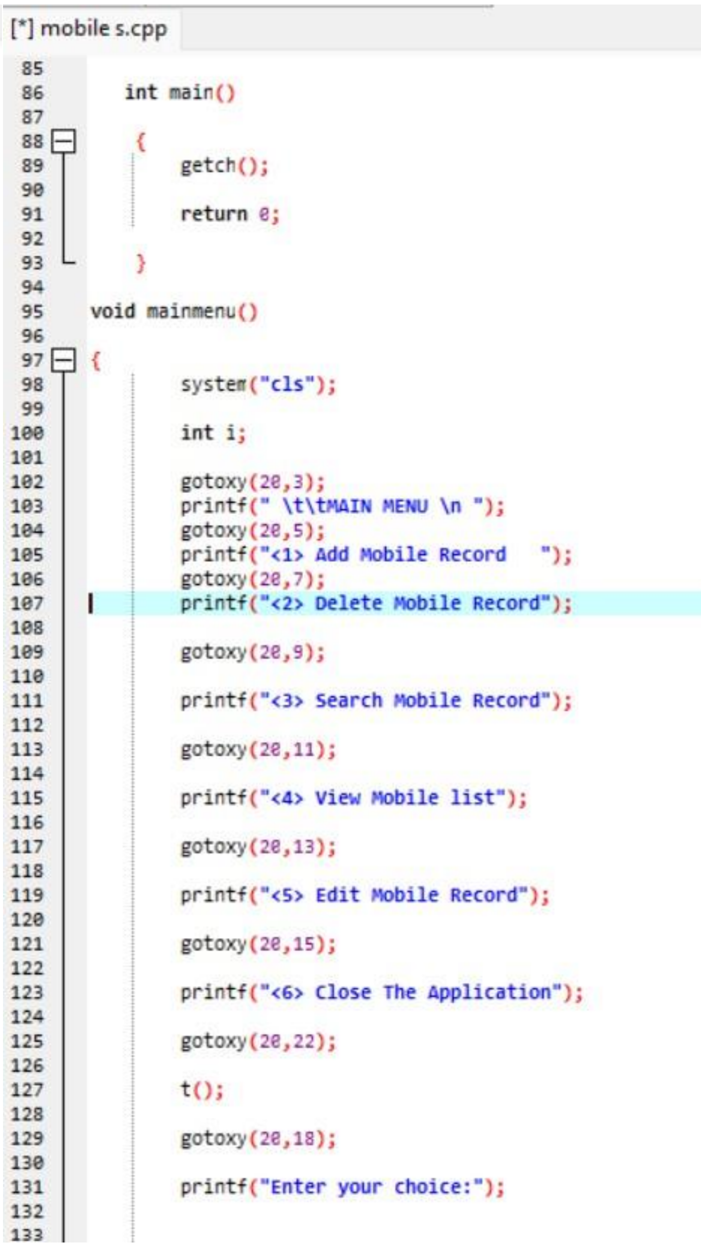
```
#include<windows.h>
#include<stdio.h>
#include<conio.h>
#include <stdlib.h>
#include<string.h>
#include<ctype.h>
#define RETURNTIME 15
```



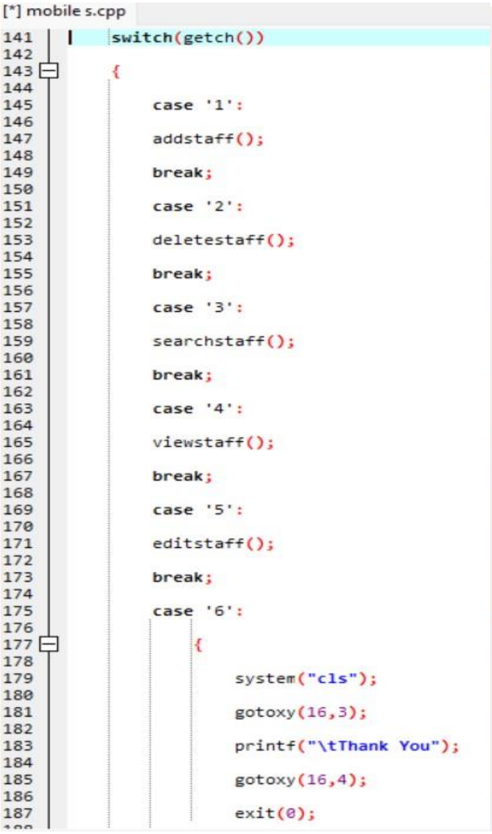
```
char catagories[][15]={"Samsung","Apple","Xiaomi","Vivo","OPPO","Tecno"};

void returnfunc(void);

void mainmenu(void);

void addstaff(void);

void deletestaff(void);

void editstaff(void);

void searchstaff(void);

void viewstaff(void);

void closeapplication(void);

int  getdata();

int  checkid(int);

int t(void);

void Password();

void issuerecord();

void loaderanim();

```



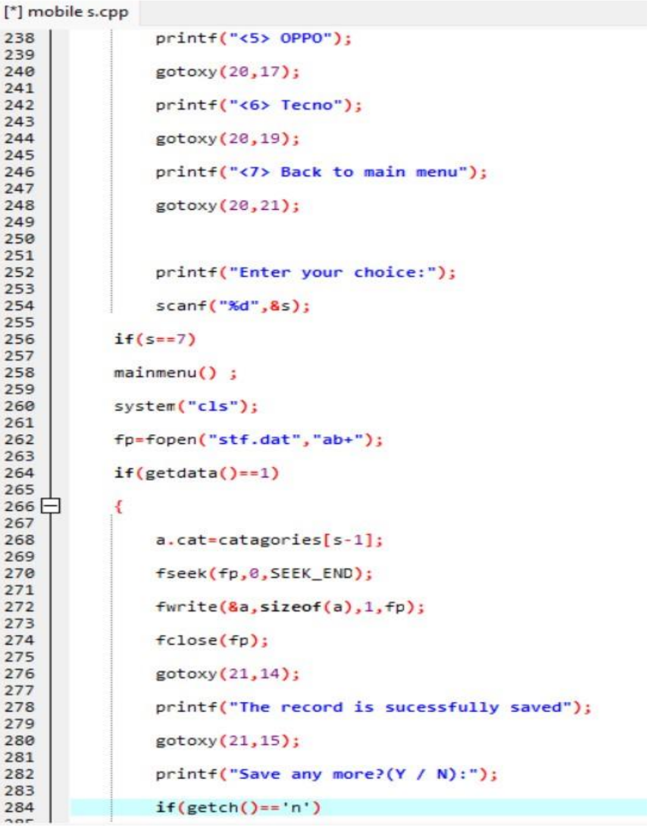
```
FILE *fp,*ft,*fs;

COORD coord = {0, 0};

int s;

char findstaff;

char password[10]={"pass"};


void gotoxy (int x, int y)

    {

        coord.X = x; coord.Y = y;

        SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE), coord);

    }

  struct staff

    {

        int id;

        char stname[20];

        char name[20];

        char available[20];

        int qty;

        int price;

        int count;

        char *cat;

    };
```



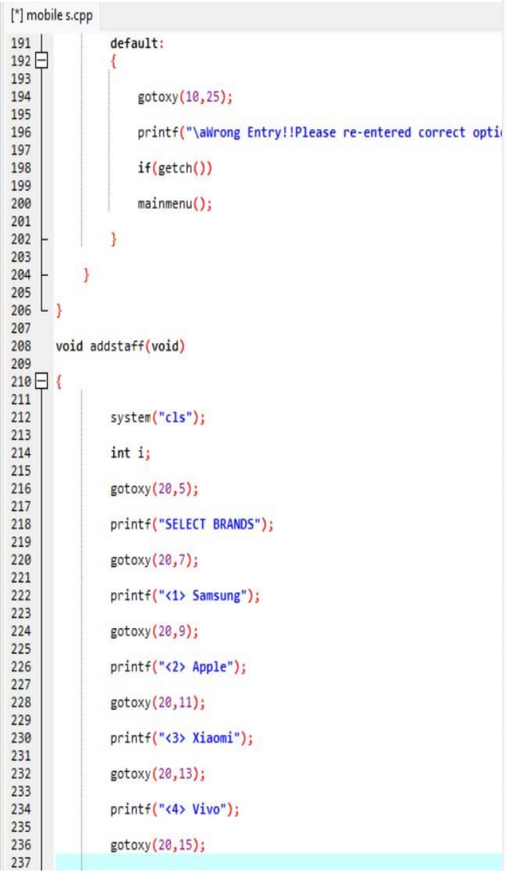
```

    int main()

     {
         getch();

         return 0;

     }

void mainmenu()

{
         system("cls");

         int i;

         gotoxy(20,3);
         printf(" \t\tMAIN MENU \n ");
         gotoxy(20,5);
         printf("<1> Add Mobile Record     ");
         gotoxy(20,7);
         printf("<2> Delete Mobile Record");

         gotoxy(20,9);

         printf("<3> Search Mobile Record");

         gotoxy(20,11);

         printf("<4> View Mobile list");

         gotoxy(20,13);

         printf("<5> Edit Mobile Record");

         gotoxy(20,15);

         printf("<6> Close The Application");

         gotoxy(20,22);

         t();

         gotoxy(20,18);

         printf("Enter your choice:");

```



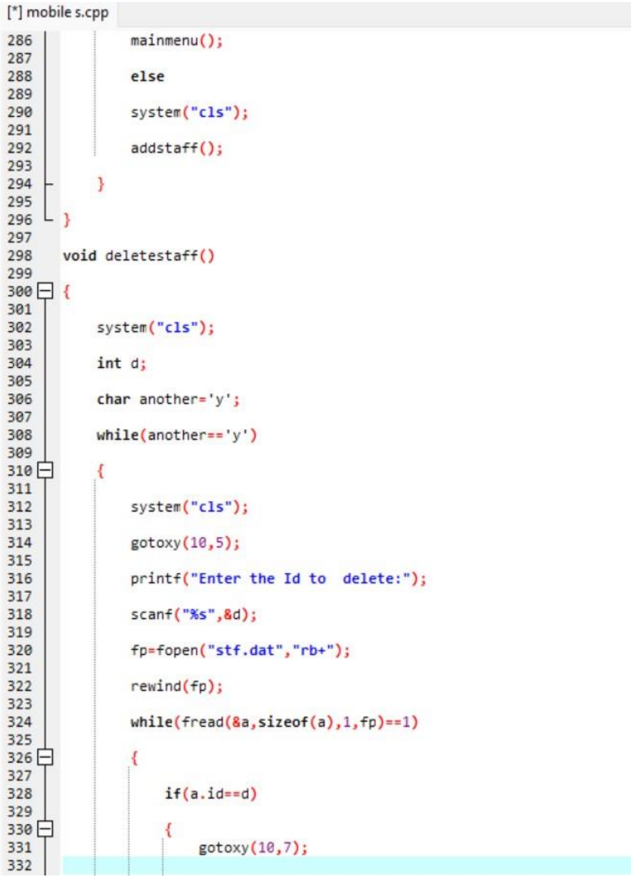
```
    switch(getch())
    {
        case '1':
        addstaff();
        break;
        case '2':
        deletestaff();
        break;
        case '3':
        searchstaff();
        break;
        case '4':
        viewstaff();
        break;
        case '5':
        editstaff();
        break;
        case '6':
            {
                system("cls");
                gotoxy(16,3);
                printf("\tThank You");
                gotoxy(16,4);
                exit(0);
```



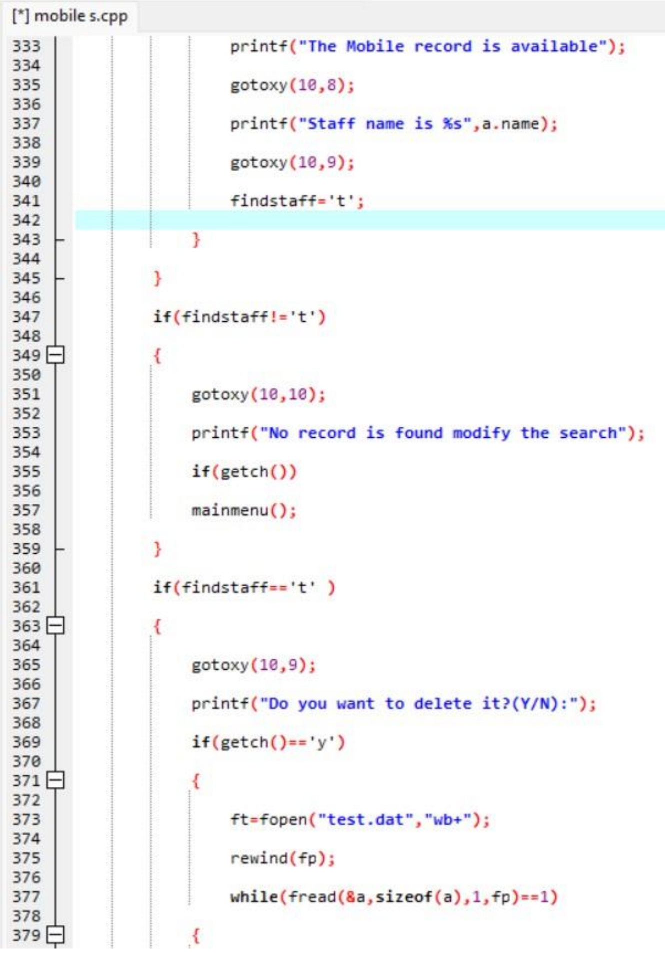
```
        printf("<5> OPPO");
        gotoxy(20,17);
        printf("<6> Tecno");
        gotoxy(20,19);
        printf("<7> Back to main menu");
        gotoxy(20,21);

        printf("Enter your choice:");
        scanf("%d",&s);
    if(s==7)
    mainmenu() ;
    system("cls");
    fp=fopen("stf.dat","ab+");
    if(getdata()==1)
    {
        a.cat=catagories[s-1];
        fseek(fp,0,SEEK_END);
        fwrite(&a,sizeof(a),1,fp);
        fclose(fp);
        gotoxy(21,14);
        printf("The record is sucessfully saved");
        gotoxy(21,15);
        printf("Save any more?(Y / N):");
        if(getch()=='n')
```



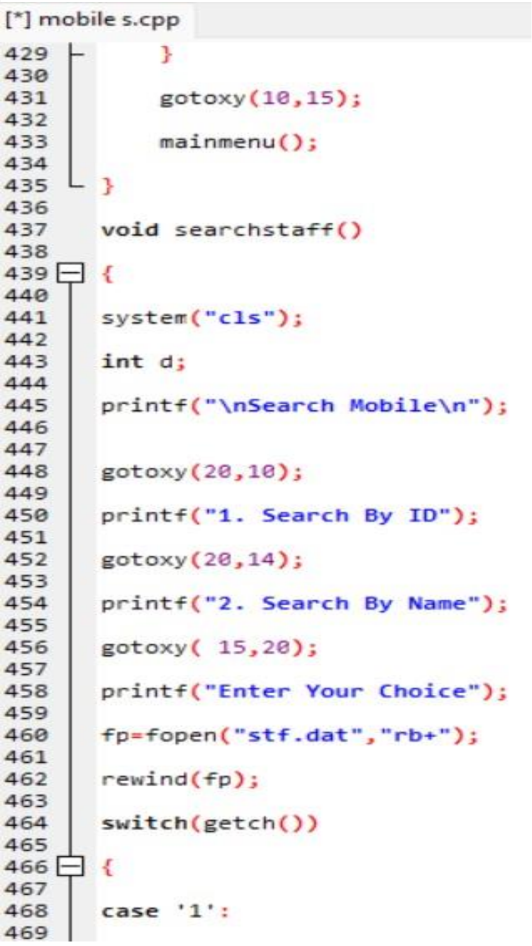
```
        default:
        {
            gotoxy(10,25);
            printf("\aWrong Entry!!Please re-entered correct opti
            if(getch())
            mainmenu();
        }
    }
}
void addstaff(void)
{
        system("cls");
        int i;
        gotoxy(20,5);
        printf("SELECT BRANDS");
        gotoxy(20,7);
        printf("<1> Samsung");
        gotoxy(20,9);
        printf("<2> Apple");
        gotoxy(20,11);
        printf("<3> Xiaomi");
        gotoxy(20,13);
        printf("<4> Vivo");
        gotoxy(20,15);
```



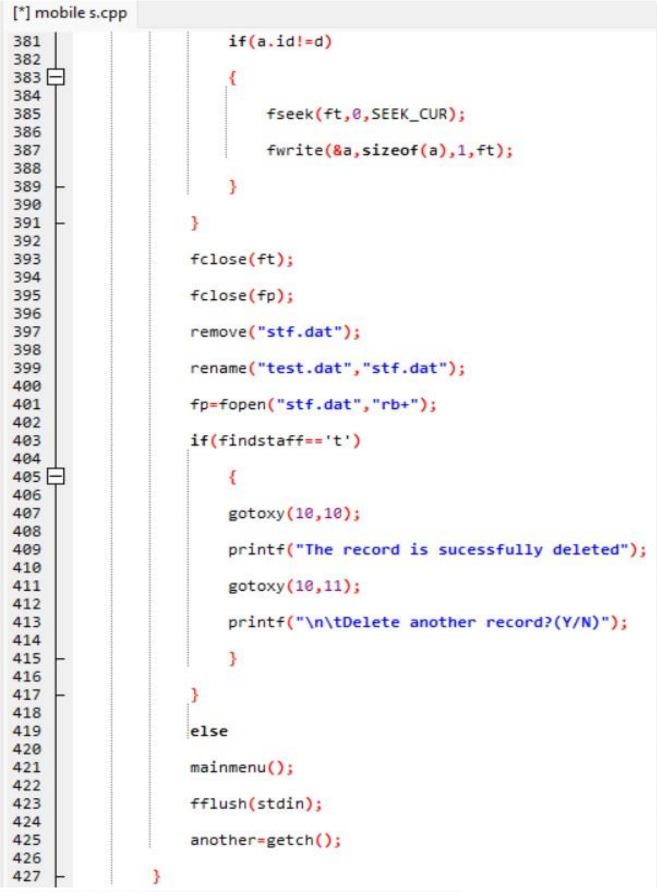
```
        mainmenu();
        else
        system("cls");
        addstaff();
    }
}
void deletestaff()
{
    system("cls");
    int d;
    char another='y';
    while(another=='y')
    {
        system("cls");
        gotoxy(10,5);
        printf("Enter the Id to  delete:");
        scanf("%s",&d);
        fp=fopen("stf.dat","rb+");
        rewind(fp);
        while(fread(&a,sizeof(a),1,fp)==1)
        {
            if(a.id==d)
            {
                gotoxy(10,7);
```



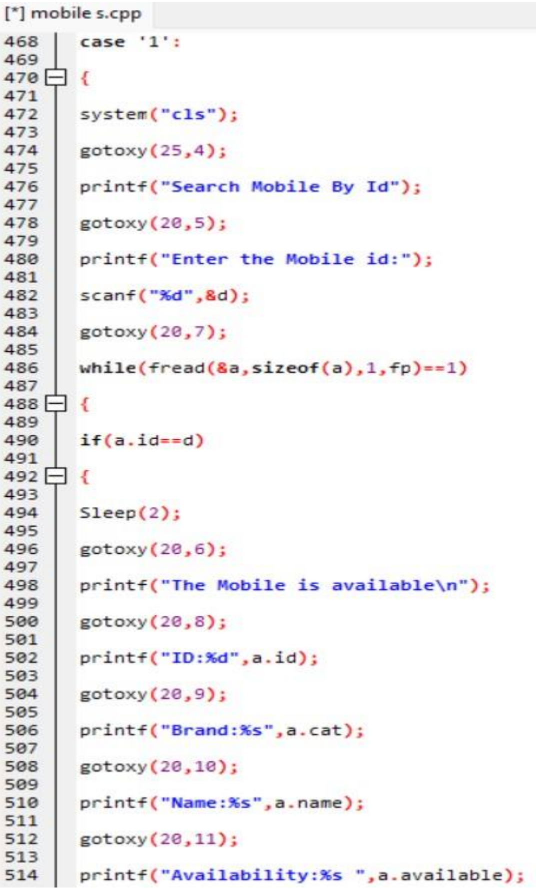
```
                printf("The Mobile record is available");

                gotoxy(10,8);

                printf("Staff name is %s",a.name);

                gotoxy(10,9);

                findstaff='t';


            }

        }

        if(findstaff!='t')

        {

            gotoxy(10,10);

            printf("No record is found modify the search");

            if(getch())

            mainmenu();

        }

        if(findstaff=='t' )

        {

            gotoxy(10,9);

            printf("Do you want to delete it?(Y/N):");

            if(getch()=='y')

            {

                ft=fopen("test.dat","wb+");

                rewind(fp);

                while(fread(&a,sizeof(a),1,fp)==1)

            {
```



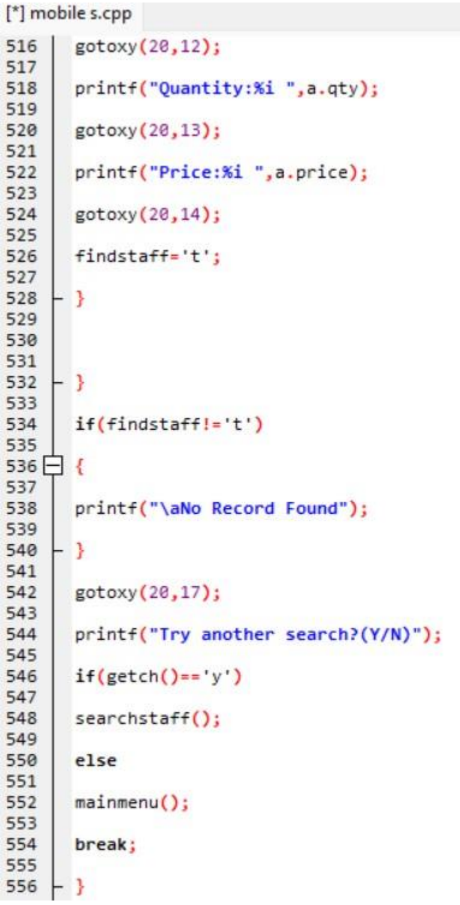
```
        }

        gotoxy(10,15);

        mainmenu();

}

void searchstaff()

{

system("cls");

int d;

printf("\nSearch Mobile\n");


gotoxy(20,10);

printf("1. Search By ID");

gotoxy(20,14);

printf("2. Search By Name");

gotoxy( 15,20);

printf("Enter Your Choice");

fp=fopen("stf.dat","rb+");

rewind(fp);

switch(getch())

{

case '1':

```



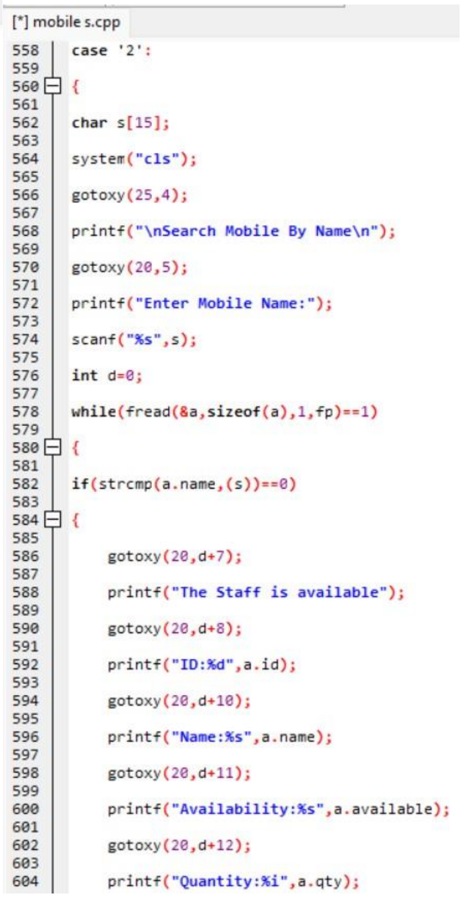
```
            if(a.id!=d)
                {
                    fseek(ft,0,SEEK_CUR);
                    fwrite(&a,sizeof(a),1,ft);
                }
            }
            fclose(ft);
            fclose(fp);
            remove("stf.dat");
            rename("test.dat","stf.dat");
            fp=fopen("stf.dat","rb+");
            if(findstaff=='t')
                {
                gotoxy(10,10);
                printf("The record is sucessfully deleted");
                gotoxy(10,11);
                printf("\n\tDelete another record?(Y/N)");
                }
            }
            else
            mainmenu();
            fflush(stdin);
            another=getch();
        }
```



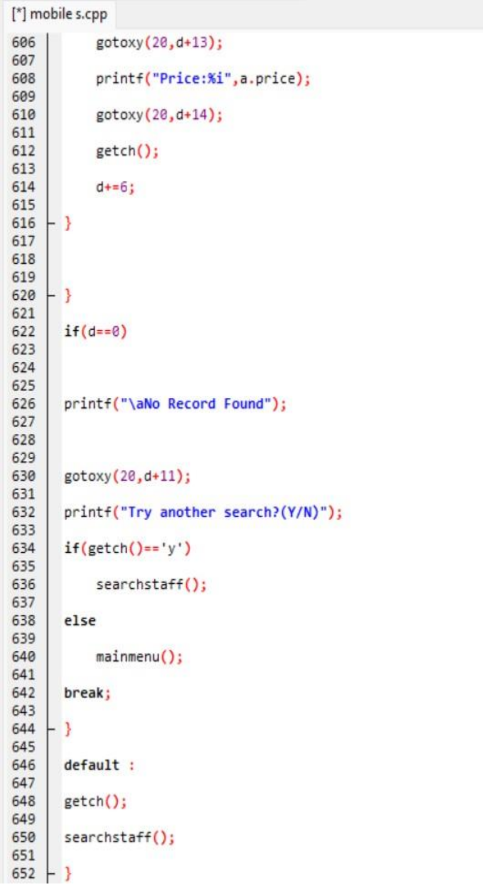
```
case '1':
{
system("cls");
gotoxy(25,4);
printf("Search Mobile By Id");
gotoxy(20,5);
printf("Enter the Mobile id:");
scanf("%d",&d);
gotoxy(20,7);
while(fread(&a,sizeof(a),1,fp)==1)
{
if(a.id==d)
{
Sleep(2);
gotoxy(20,6);
printf("The Mobile is available\n");
gotoxy(20,8);
printf("ID:%d",a.id);
gotoxy(20,9);
printf("Brand:%s",a.cat);
gotoxy(20,10);
printf("Name:%s",a.name);
gotoxy(20,11);
printf("Availability:%s ",a.available);
```



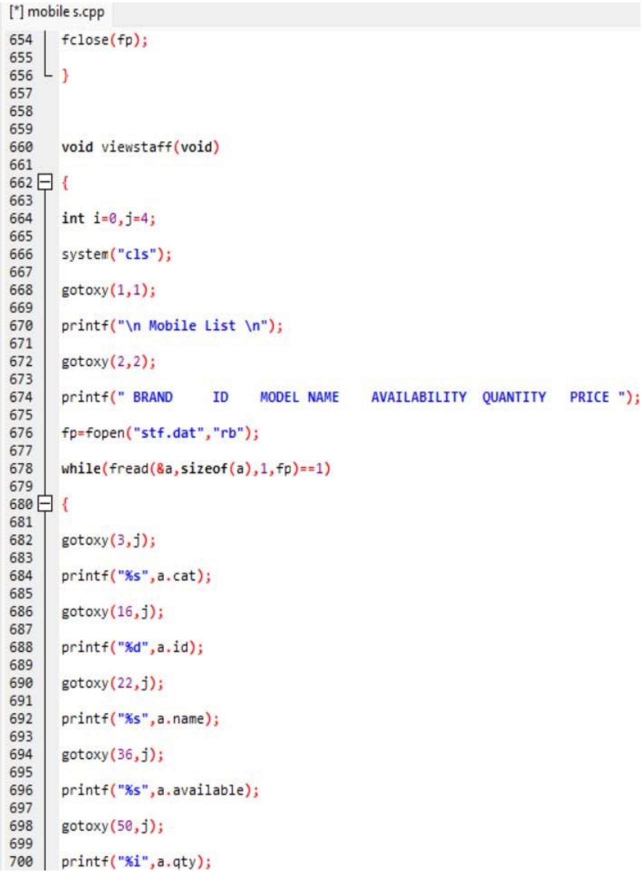
```
gotoxy(20,12);
printf("Quantity:%i ",a.qty);
gotoxy(20,13);
printf("Price:%i ",a.price);
gotoxy(20,14);
findstaff='t';
}


}
if(findstaff!='t')
{
printf("\aNo Record Found");
}
gotoxy(20,17);
printf("Try another search?(Y/N)");
if(getch()=='y')
searchstaff();
else
mainmenu();
break;
}
```



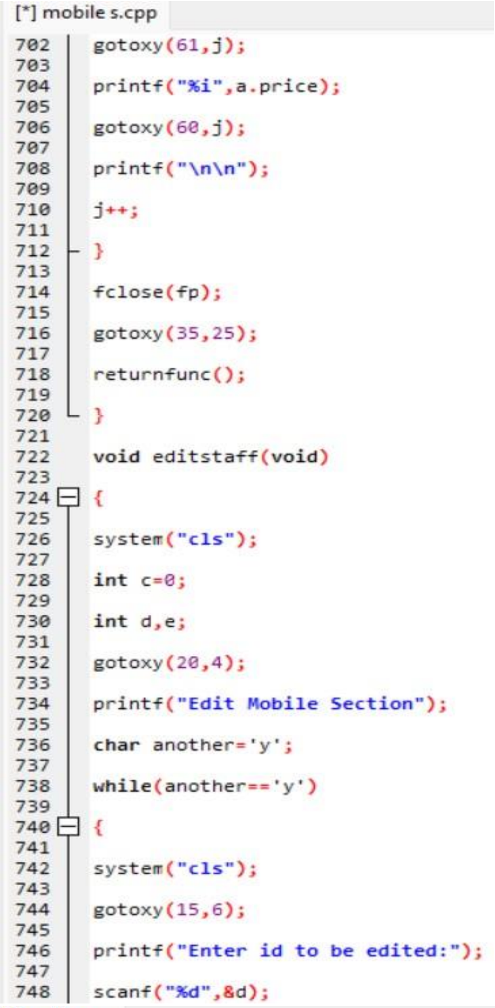
```
case '2':
{
char s[15];
system("cls");
gotoxy(25,4);
printf("\nSearch Mobile By Name\n");
gotoxy(20,5);
printf("Enter Mobile Name:");
scanf("%s",s);
int d=0;
while(fread(&a,sizeof(a),1,fp)==1)
{
if(strcmp(a.name,(s))==0)
{
    gotoxy(20,d+7);
    printf("The Staff is available");
    gotoxy(20,d+8);
    printf("ID:%d",a.id);
    gotoxy(20,d+10);
    printf("Name:%s",a.name);
    gotoxy(20,d+11);
    printf("Availability:%s",a.available);
    gotoxy(20,d+12);
    printf("Quantity:%i",a.qty);
```



```
        gotoxy(20,d+13);

        printf("Price:%i",a.price);

        gotoxy(20,d+14);

        getch();

        d+=6;

    }



    }

    if(d==0)



    printf("\aNo Record Found");



    gotoxy(20,d+11);

    printf("Try another search?(Y/N)");

    if(getch()=='y')

        searchstaff();

    else

        mainmenu();

    break;

    }

    default :

    getch();

    searchstaff();

    }
```

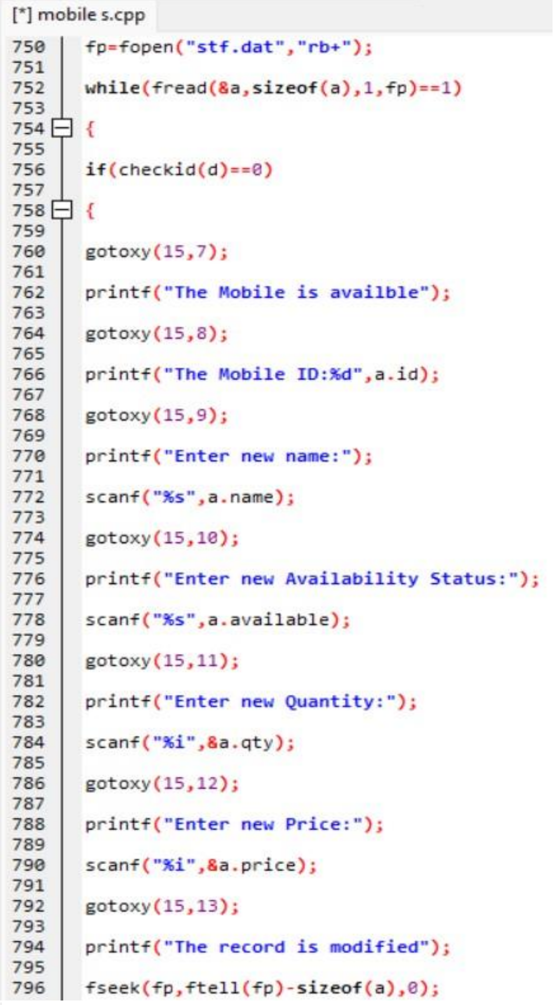


```
fclose(fp);

}



void viewstaff(void)

{

int i=0,j=4;

system("cls");

gotoxy(1,1);

printf("\n Mobile List \n");

gotoxy(2,2);

printf(" BRAND     ID    MODEL NAME    AVAILABILITY  QUANTITY    PRICE ");

fp=fopen("stf.dat","rb");

while(fread(&a,sizeof(a),1,fp)==1)

{

gotoxy(3,j);

printf("%s",a.cat);

gotoxy(16,j);

printf("%d",a.id);

gotoxy(22,j);

printf("%s",a.name);

gotoxy(36,j);

printf("%s",a.available);

gotoxy(50,j);

printf("%i",a.qty);
```



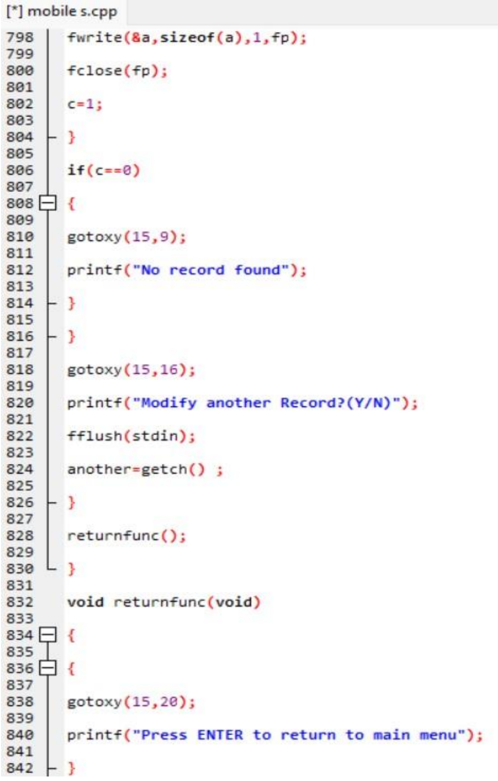
[*] mobile s.cpp

```
gotoxy(61,j);

printf("%i",a.price);

gotoxy(60,j);

printf("\n\n");

j++;

}

fclose(fp);

gotoxy(35,25);

returnfunc();

}

void editstaff(void)

{

system("cls");

int c=0;

int d,e;

gotoxy(20,4);

printf("Edit Mobile Section");

char another='y';

while(another=='y')

{

system("cls");

gotoxy(15,6);

printf("Enter id to be edited:");

scanf("%d",&d);
```



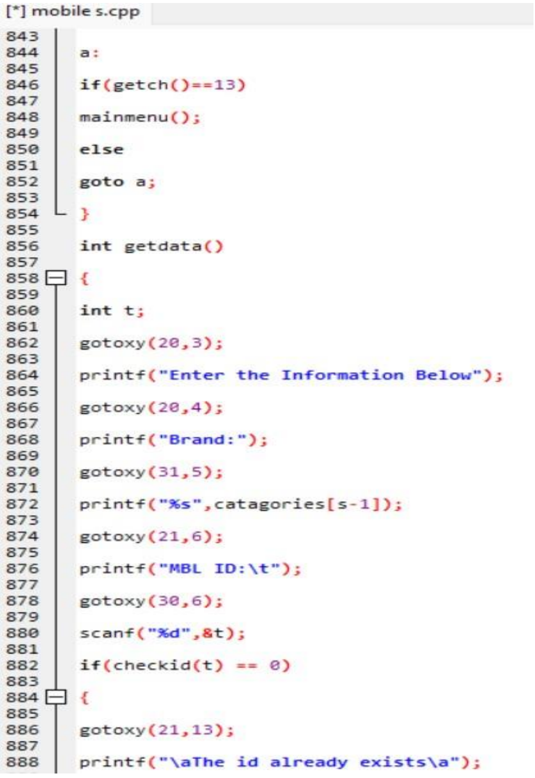
[*] mobile s.cpp

```
fp=fopen("stf.dat","rb+");

while(fread(&a,sizeof(a),1,fp)==1)

{

if(checkid(d)==0)

{

gotoxy(15,7);

printf("The Mobile is availble");

gotoxy(15,8);

printf("The Mobile ID:%d",a.id);

gotoxy(15,9);

printf("Enter new name:");

scanf("%s",a.name);

gotoxy(15,10);

printf("Enter new Availability Status:");

scanf("%s",a.available);

gotoxy(15,11);

printf("Enter new Quantity:");

scanf("%i",&a.qty);

gotoxy(15,12);

printf("Enter new Price:");

scanf("%i",&a.price);

gotoxy(15,13);

printf("The record is modified");

fseek(fp,ftell(fp)-sizeof(a),0);
```



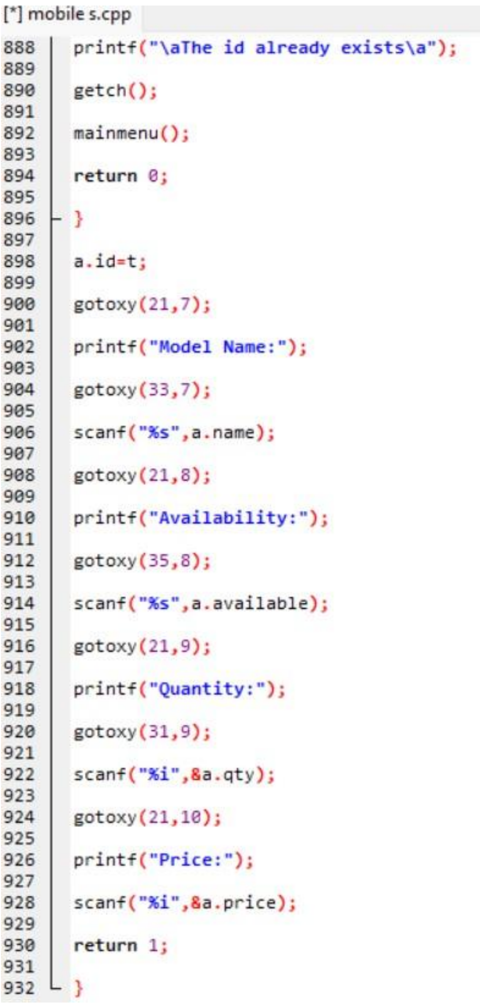
[*] mobile s.cpp

```
fwrite(&a,sizeof(a),1,fp);

fclose(fp);

c=1;

}

if(c==0)

{

gotoxy(15,9);

printf("No record found");

}

}

gotoxy(15,16);

printf("Modify another Record?(Y/N)");

fflush(stdin);

another=getch() ;

}

returnfunc();

}

void returnfunc(void)

{

{

gotoxy(15,20);

printf("Press ENTER to return to main menu");

}
```

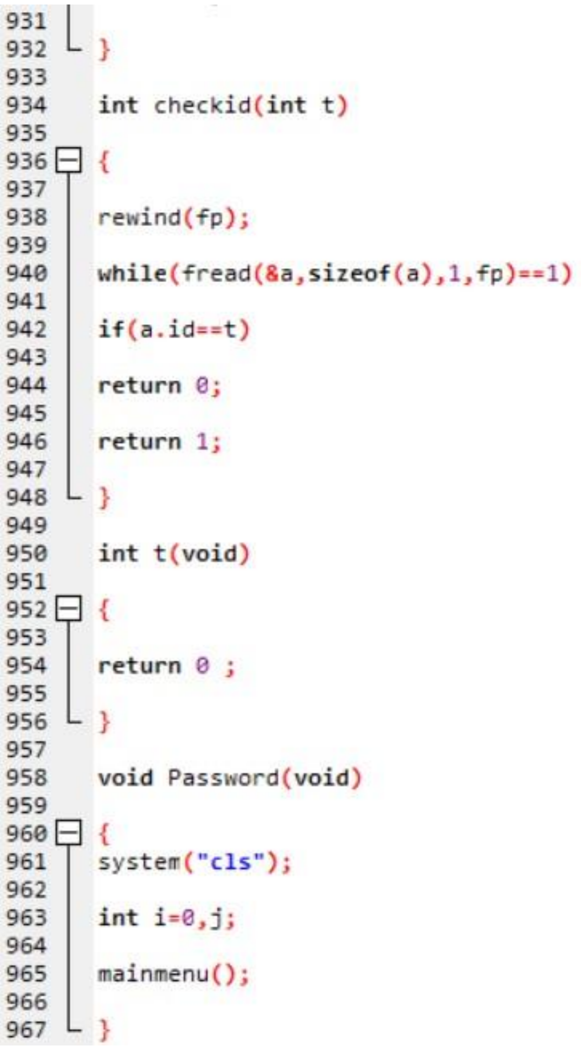


[*] mobile s.cpp

```

a:

if(getch()==13)

mainmenu();

else

goto a;

}

int getdata()

{

int t;

gotoxy(20,3);

printf("Enter the Information Below");

gotoxy(20,4);

printf("Brand:");

gotoxy(31,5);

printf("%s",catagories[s-1]);

gotoxy(21,6);

printf("MBL ID:\t");

gotoxy(30,6);

scanf("%d",&t);

if(checkid(t) == 0)

{

gotoxy(21,13);

printf("\aThe id already exists\a");
```



```
printf("\aThe id already exists\a");

getch();

mainmenu();

return 0;

}

a.id=t;

gotoxy(21,7);

printf("Model Name:");

gotoxy(33,7);

scanf("%s",a.name);

gotoxy(21,8);

printf("Availability:");

gotoxy(35,8);

scanf("%s",a.available);

gotoxy(21,9);

printf("Quantity:");

gotoxy(31,9);

scanf("%i",&a.qty);

gotoxy(21,10);

printf("Price:");

scanf("%i",&a.price);

return 1;

}
```



```

}

int checkid(int t)

{

rewind(fp);

while(fread(&a,sizeof(a),1,fp)==1)

if(a.id==t)

return 0;

return 1;

}

int t(void)

{

return 0 ;

}

void Password(void)

{
system("cls");

int i=0,j;

mainmenu();

}
```

This is the Source code of Mobile Store Management System.

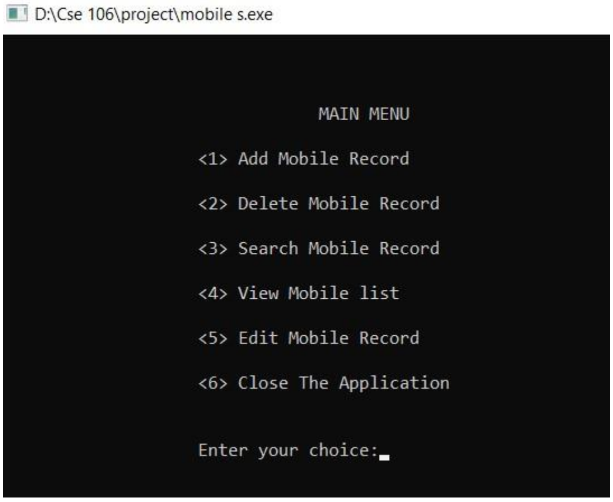
Chapter 3

Performance Evaluation

3.1 Results and Discussions

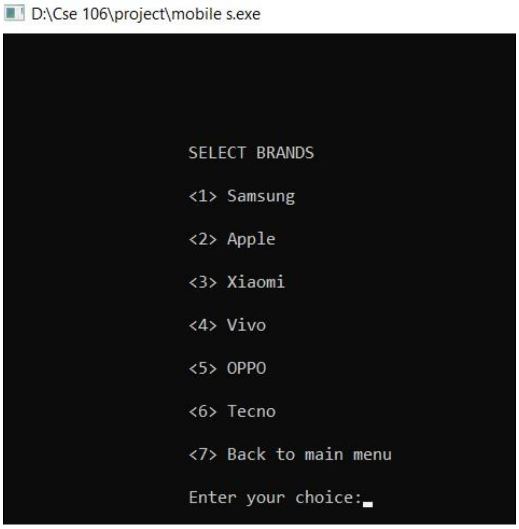
3.1.1 Output

- This is the main panel of the system. From there can do any of the following option.



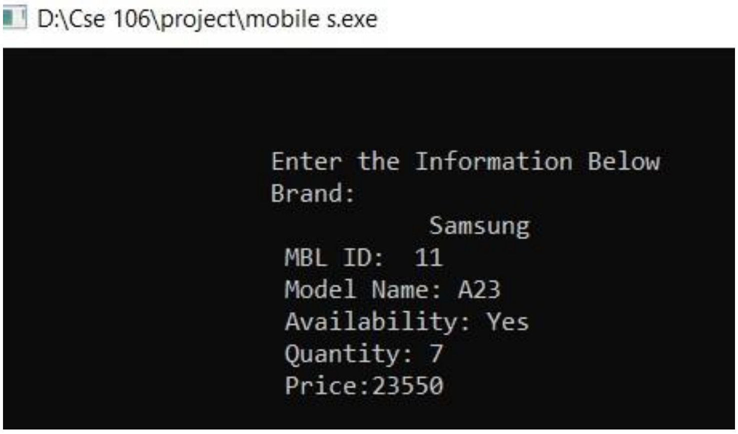
```
D:\Cse 106\project\mobile s.exe

                    MAIN MENU
              <1> Add Mobile Record
              <2> Delete Mobile Record
              <3> Search Mobile Record
              <4> View Mobile list
              <5> Edit Mobile Record
              <6> Close The Application

              Enter your choice:_
```

- If the user enter 1 then the output will be look like that:



```
D:\Cse 106\project\mobile s.exe

              SELECT BRANDS
              <1> Samsung
              <2> Apple
              <3> Xiaomi
              <4> Vivo
              <5> OPPO
              <6> Tecno
              <7> Back to main menu
              Enter your choice:_
```

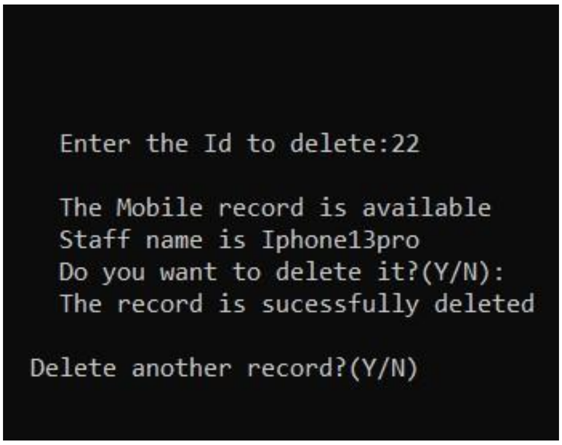
- If User choice any of this and enter information than output will be look like that.



D:\Cse 106\project\mobile s.exe

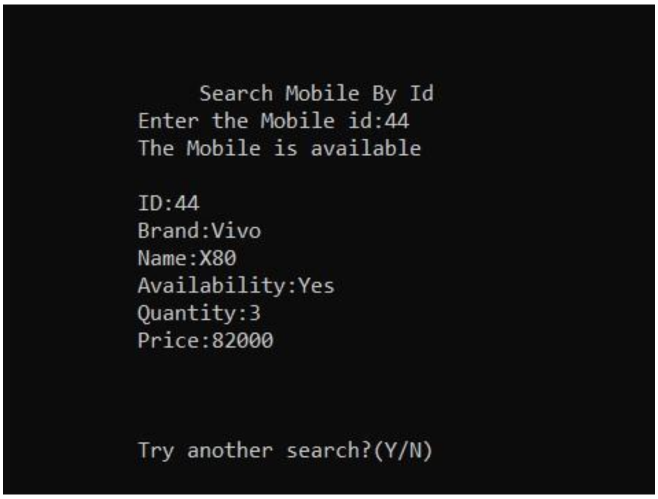
```
                  Enter the Information Below
                  Brand:
                             Samsung
                   MBL ID:   11
                   Model Name: A23
                   Availability: Yes
                   Quantity: 7
                   Price:23550
```

- Option 2 is for Delete record of a specific mobile information



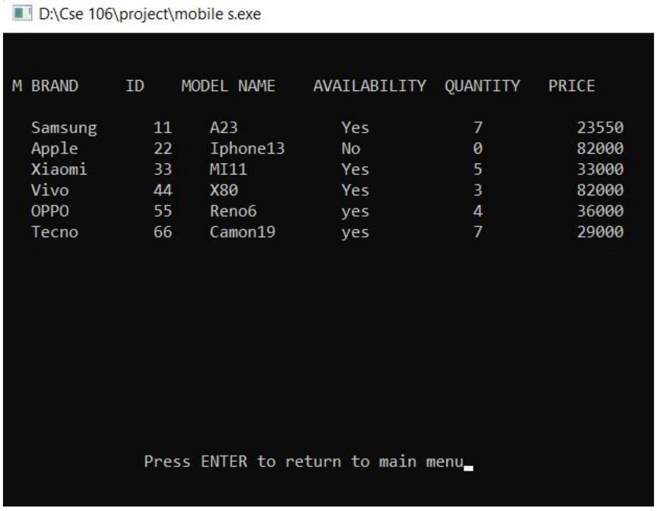
```
   Enter the Id to delete:22

   The Mobile record is available
   Staff name is Iphone13pro
   Do you want to delete it?(Y/N):
   The record is sucessfully deleted

 Delete another record?(Y/N)
```

- Option 3 is for Search an information about a mobile:



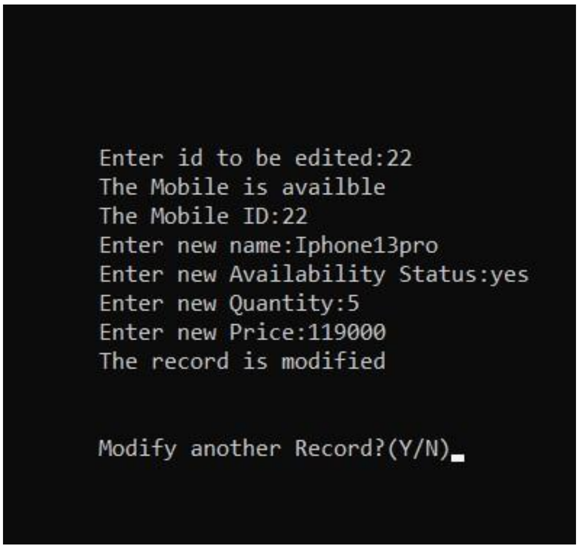
```
          Search Mobile By Id
     Enter the Mobile id:44
     The Mobile is available

     ID:44
     Brand:Vivo
     Name:X80
     Availability:Yes
     Quantity:3
     Price:82000


     Try another search?(Y/N)
```

- Option 4 is for view all Mobile list:



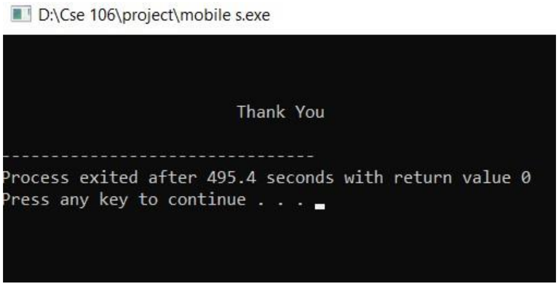
```
M BRAND     ID    MODEL NAME    AVAILABILITY  QUANTITY    PRICE

  Samsung      11    A23           Yes           7          23550
  Apple        22    Iphone13      No            0          82000
  Xiaomi       33    MI11          Yes           5          33000
  Vivo         44    X80           Yes           3          82000
  OPPO         55    Reno6         yes           4          36000
  Tecno        66    Camon19       yes           7          29000




              Press ENTER to return to main menu_
```

- Option 5 is for Edit Mobile list:



```
Enter id to be edited:22
The Mobile is availble
The Mobile ID:22
Enter new name:Iphone13pro
Enter new Availability Status:yes
Enter new Quantity:5
Enter new Price:119000
The record is modified


Modify another Record?(Y/N)_
```

- Option 6 is for Close the application:



```
                         Thank You

--------------------------------
Process exited after 495.4 seconds with return value 0
Press any key to continue . . . _
```

3.1.2 Analysis and Outcome

The project is build using C programming language. We do the coding on Dev-C++ using GCC compiler. This project is mainly built for reduce the pressure and do the work efficiently. We will update this project and add more feature. It will be helpful for all the shop owners. So fer we do the project using the course knowledge of Data structure programming.

Chapter 4

Conclusion

4.1 Introduction

Mobile store management System is a software solution for tracking and managing Mobile data. (M.S.M.S) is specifically designed for mobile's basic information settings, and its many features enable shop's efficient functioning on a daily basis. The computerization of the mobile record will improve the efficiency and reduce human stress, and also indirectly improving the human recourses. This system helps the user to easily access through all the information about mobiles.

4.2 Practical Implications

The Mobile store management System helps the user to easily access through all the information about mobiles.

4.3 Scope of Future Work

In future this can be the most useful product for the shops and distributors. It will keep the mobile's information safe and synchronized. In future we can add more feature to this. Like add detailed configuration of a mobile, billing history of a shop. This system can reduce the mistake and work more efficiently. In this way it can be helpful for our work.