

```

//ASSIGNMENT NO: 2

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#include <iostream>

#include <fstream>

#include <string.h>

using namespace std;

class SimReg
{
private:
int id;

public:
SimReg (){id=100;}
~SimReg (){id=100;}

int getid() {return id;}

void menu() //fuction displays the first menu
{
cout<<" ***** " <<endl;
cout<<" * 1.Adminstrator * " <<endl;
cout<<" * 2.Customer * " <<endl;
cout<<" * 3.Exit * " <<endl;
cout<<" ***** " <<endl;
}
}

```

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void menu2() //function displays second menu
{
    cout<<" ***** " <<endl;
    cout<<" * 1.Create customer file * " <<endl;
    cout<<" * 2.Delete customer details * " <<endl;
    cout<<" * 3.Add customer details * " <<endl;
    cout<<" * 4.Change customer details * " <<endl;
    cout<<" ***** " <<endl;
}
};
class details: public SimReg
{
    private:
    public:
    bool credentials(char id,char password) //boolian function checks if the entered password is correct
    {
        return (id==password);
    }
    void textfile() //void function creates a text file
    {
        ofstream theFile;
        char filename[20];
        int i,j,age,number;
        char first[20],last[20],address[40],id[10];
        cout<<" Enter number of customers: ";
        cin>>j;
        cout<<"\n Customer: 1 \n" <<endl;
    }
}

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for(i=1; i<=j;i++) //writing to the file
{
    cout<<" Enter Firstname: ";
    cin>>first;
    cout<<" Enter Surname: ";
    cin>>last;
    cout<<" Enter NRC number :";
    cin>>id;
    cout<<" Enter your Age: ";
    cin>>age;
    cout<<" Enter your phone number: ";
    cin>>number;
    cout<<" Enter your address: ";
    cin>>address;
    cout<<"\n Create name of text file: "; //creating name of text file
    cin>>filename;
    cout<<"\n Your Sim Card Has successfully been registered. "<<endl;
    cout<<"\n Your file name is: "<<filename<<" in order to check your details. \n"<<endl;
    theFile.open(filename); //opening file
    cout<<" Customer: "<<i+1<<endl;
    theFile<<"Name: "<<last<<" "<<first<<endl;
    theFile<<"NRC: "<<id<<endl;
    theFile<<"Age: "<<age<<endl;
    theFile<<"Number: "<<number<<endl;
    theFile<<"Address: "<<address<<endl;
    theFile.close(); //closing file
}
}

```

```

void addinfo() //function adds more information customer to file
{
    ofstream theFile;
    char filename[40];
    cout<<"Enter Surname ending with .txt: "; //Name of text file to be edited
    cin>>filename;
    theFile.open(filename,ios::app); //Code for adding more data to an existing file
    int number;
    char address[40];
    cout<<" Enter your second number: ";
    cin>>number;
    cout<<" Enter your new Address: ";
    cin>>address;
    theFile<<"Second Number: "<<number<<endl;
    theFile<<"New Address: "<<address<<endl;
    theFile.close(); // closing file
}

void display() //diplays contents of named file
{
    ifstream theFile; //Reading from file
    char filename[40];
    cout<<" Enter Name of file: ";
    cin>>filename;
    char line[40];
    theFile.open(filename);
    cout<<endl;
    while(theFile.getline(line,39)) // loop that reads data from file line by line
    {
        cout<<line<<endl;
    }
}

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    }
    theFile.close();
}
void deleteinfo()
{
    ofstream theFile;
    char filename[20];
    cout<<" Enter Surname ending with .txt: ";
    cin>>filename;
    theFile.open(filename,ios::trunc); //delete info
    theFile.close();
}
int changeinfo()
{
    ofstream theFile;
    char filename[20],first[20],last[20],id[10];
    string address;
    int number,age;
    cout<<" Enter Surname ending with .txt: ";
    cin>>filename;
    theFile.open(filename,ios::ate);
    cout<<" Enter Firstname: ";
    cin>>first;
    cout<<" Enter Surname: ";
    cin>>last;
    cout<<" Enter NRC number :";
    cin>>id;
    cout<<" Enter your Age: ";
    cin>>age;
}

```

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    cout<<" Enter your phone number: ";
    cin>>number;

    cout<<" Enter your address: ";
    cin>>address;

    cout<<"\n The Sim Card Has successfully been registered. "<<endl;
    cout<<"\n the file name is: "<<filename<<" in order to check details. \n"<<endl;

    //Message is printed and given to customer
    theFile<<"Name: "<<last<<" "<<first<<endl;
    theFile<<"NRC: "<<id<<endl;
    theFile<<"Age: "<<age<<endl;
    theFile<<"Number: "<<number<<endl;
    theFile<<"Address: "<<address<<endl;
    theFile.close(); //closing file
    return 0;
}
};

int main()
{
    int i,id,password,choice,choice1;

    i=3;

    cout<<" ##### Welcome to the automated Sim Registration system ##### \n"<<endl;
    cout<<" Select option: \n"<<endl;

    details mc;

    id=mc.getid(); //Calling a Function that gets id from SimReg class
hc:

    mc.menu();

    cin>>choice;

```

```

switch (choice) //checking password
{
    case 1:
        try
        {
            do
            {
                cout<<" Enter adminstrator password: ";
                cin>>password;

                if(mc.credentials(id,password)) //calls fuction which compares password to id
                    throw password;

                i=i-1;

                if (i==0)
                {
                    cout<<"\n Invalid password. You do not have adminstrator rights"<<endl;
                    goto hm;
                }
            }
            else
            {
                cout<<"\n Wrong password!!! Please try again.\n"<<endl;
                cout<<" You have "<<i<<" attempt(s) remaining.\n"<<endl;
            }
        }
        while(i>0);
    }
    catch (int password)
    {
        cout<<"\n ##### Welcome you are logged in as ADMINSTRATOR ##### \n"<<endl;
    }
}

```

```
}
```

```
mm:
```

```
cout<<" Select task \n"<<endl;
```

```
mc.menu2();
```

```
cin>>choice1;
```

```
switch (choice1)
```

```
{
```

```
case 1:
```

```
mc.textfile(); //Calling a function that creates a file
```

```
break;
```

```
case 2:
```

```
mc.deleteinfo(); //calls function which deletes customer information
```

```
break;
```

```
case 3:
```

```
mc.addinfo(); //calling a function that adds more customer information to an existing file
```

```
break;
```

```
case 4:
```

```
mc.changeinfo();
```

```
break;
```

```
default:
```

```
cout<<" You have not sected anything!!! \n"<<endl;
```

```
goto mm;
```

```
}
```

```
break;
```

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case 2:
```

```
mc.display(); //Calling fuction that displays contents of a file
```

```
break;
```

```
case 3:
```

```
goto hm;
```

```
break;
default:
cout<<" You have not selected an option!!! \n"<<endl;
goto hc;
}
cout<<"\n WOULD YOU LIKE TO GO BACK TO MAIN MENU \n\n 1.YES \n 2.NO "<<endl;
cin>>choice;
if(choice==1)
{
goto hc;
}
if(choice==2)
{
cout<<"\n *** THANK FOR USING HMC'S AUTOMATED SIM REGISTRATION SYSTEM *** \n"<<endl;
}
hm:
{
cout<<"          ***** "<<endl;
cout<<"          *  EXIT  * "<<endl;
cout<<"          ***** "<<endl;
}
return 0;
}
```