

Assignment 2

Programming Fundamental



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STATEMENT:

Create a login and signup page

1. Create a menu using functions
2. If user can choose option 1 then user can create sign-up
3. If user can choose option 2 then user can create login
4. If user can choose option 3 then user can exit the program

If password is incorrect then user can try again option has been appeared. Otherwise it will tell the user the entry is invalid and allows them to try 3 more times. (3 in total) Also, the login Attempt loop counter is incremented up by 1.

1. MENU:

First The Menu with Display On the Screen. And The User Will Select an OPTION 1 FOR SIGNUP, OPTION 2 for LOGIN and OPTION 3 for EXIT. Switch Statement is used for decision making .and if user enter number smaller than 1 or greater than 3 so the default statement will be appearing.

CODE:

```
int main ()
{
    int op;
    do {
        cout<<"||****||MENU||****||"<<endl;
        cout<<" OPTION 1 <SIGNUP>"<<endl;
        cout<<" OPTION 2 <LOGIN>"<<endl;
        cout<<" OPTION 3 <EXIT>"<<endl;
        cin>>op;
        switch(op) {
            case 1:
            {
                SIGNUP ();
                break;
```

```

    }

    case 2:

    {

    LOGIN ();

    break;

    }

    case 3:

    {

    cout<<"EXITING PROGRAM";

    break;

    }

    default:

    cout<<"PLEASE SELECT OPTION 1,2,3"<<endl;

    break;}

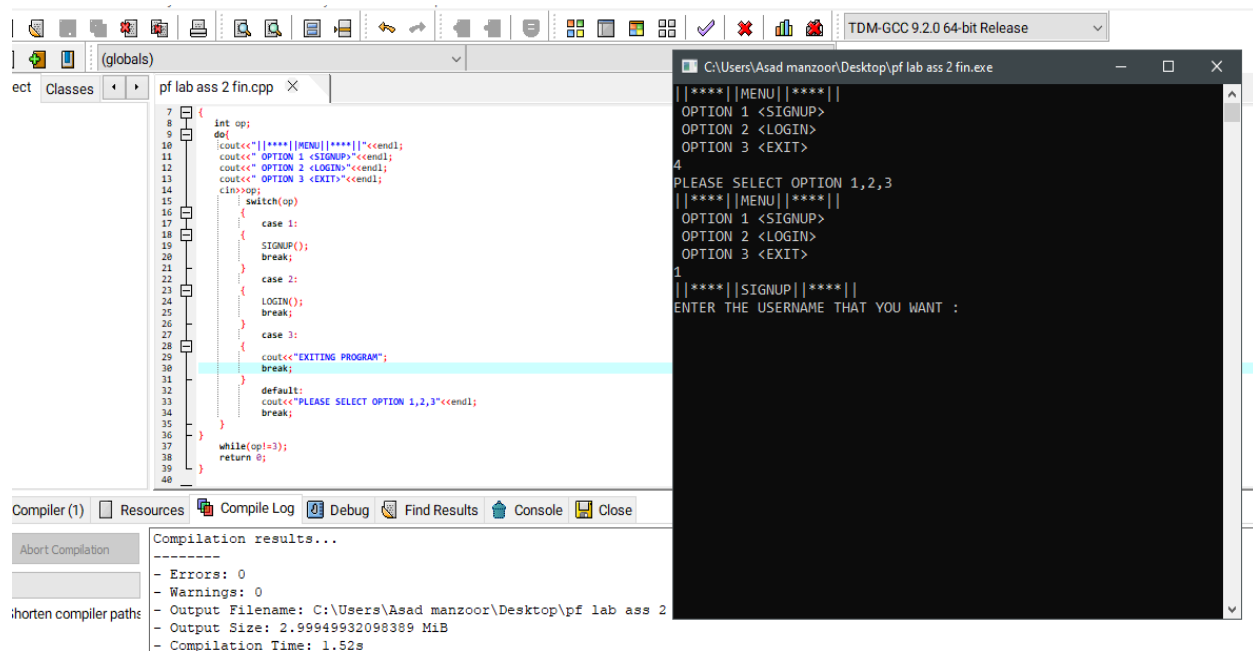
} while (op!=3);

return 0;

}

```

SCREEN AND OUTPUT OF MENU:



2. SIGNUP:

we call this function when the user chooses the option 1 for Signup an account. This function SIGNUP () is use to get the username and password from the user.

CODE:

```
void SIGNUP () {

    string username, password;

    cout<<"||****||SIGNUP||****||"<<endl;

    cout << "ENTER THE USERNAME THAT YOU WANT: ";

    cin >> username;

    cout << "ENTER A SECURE PASSWORD: ";

    cin >> password;

    cout<<"SUCCESSFULLY SIGNUP YOUR ACCOUNT!! "<<endl;
```

}SCREEN AND OUTPUT OF SIGNUP:

The screenshot displays a C++ IDE with the following components:

- Code Editor:** Shows the implementation of the `SIGNUP()` function. The code includes headers, namespace `std`, and the function body which prompts for a username and password, and prints a success message.
- Terminal Window:** Shows the program's output. It displays a menu with options 1 (SIGNUP), 2 (LOGIN), and 3 (EXIT). Option 1 is selected, leading to the SIGNUP prompt. The user enters 'LAIBA' as the username and '4567' as the password. The program then prints 'SUCCESSFULLY SIGNUP YOUR ACCOUNT!!' and returns to the main menu.
- Compiler Output:** Shows the compilation results, indicating 0 errors and 0 warnings. The output filename is `C:\Users\Asad manzoor\Desktop\pf lab ass 2 fin.exe` and the output size is 2.99950504302979 MiB.

3. **LOGIN:**

We call this function when the user chooses the option 2 for login an account. This function LOGIN () is use to get the username and password from the user and if the username or password will be wrong so program will ask the user to enter correct information and program with give 3 attempts to a user and after 3 attempts user with get a message of login fail.

CODE:

```
void LOGIN ()  
{  
    string username, password;  
    string MYUSERNAME="laiba";  
    string MYPASSWORD="0123";  
    int total attempt =3;  
    int login attempt =0;  
    cout<<"||****||LOGIN||****||"<<endl;  
  
    do {  
        cout << "ENTER THE USERNAME YOU WANT TO LOGIN: ";  
        cin >> username;  
        cout << "ENTER YOUR ACCOUNT PASSWORD: ";  
        cin >> password;  
        if (username==MYUSERNAME && password==MYPASSWORD)  
        {  
            cout<<" YOUR ACCOUNT IS SUCCESSFULL LOGIN!!"<<endl;  
            break;  
        }  
    }  
}
```

```

    }

else {

    login attempt++;

    cout<<"WRONG INFORMATION!!"<<endl;

    cout<<"NOW YOU HAVE "<<totalattempt-loginattempt<<" ATTEMPTS LEFT"<<endl;

    }

}

while (login attempt<total attempt);

if(loginattempt==totalattempt)

    cout<<"YOU ENTER WRONG PASSWORD 3 TIME LOGIN FAILED!!"<<endl;

}

```

SCREEN AND OUTPUT OF LOGIN:

The screenshot displays a C++ IDE with the following code in `pf lab ass 2 fin.cpp`:

```

14 }
15 void LOGIN()
16 {
17     string username, password;
18     string MYUSERNAME="laiba";
19     string MYPASSWORD="0123";
20     int totalattempt =3;
21     int loginattempt =0;
22     cout<<"|*****|LOGIN|*****|"<<endl;
23     do{
24         cout << "ENTER THE USERNAME YOU WANT TO LOGIN: ";
25         cin >> username;
26         cout << "ENTER YOUR ACCOUNT PASSWORD: ";
27         cin >> password;
28     }
29     if(username==MYUSERNAME && password==MYPASSWORD)
30     {
31         cout<<" YOUR ACCOUNT IS SUCCESSFULL LOGIN!!"<<endl;
32         break;
33     }
34     else{
35         loginattempt++;
36         cout<<"WRONG INFORMATION!!"<<endl;
37         cout<<"NOW YOU HAVE "<<totalattempt-loginattempt<<" ATTEMPTS LEFT"<<endl;
38     }
39 }
40 while(loginattempt<totalattempt);
41 if(loginattempt==totalattempt)
42     cout<<"YOU ENTER WRONG PASSWORD 3 TIME LOGIN FAILED!!"<<endl;
43 }

```

The output window shows the execution of the program:

```

|*****| MENU |*****|
OPTION 1 <SIGNUP>
OPTION 2 <LOGIN>
OPTION 3 <EXIT>
2
|*****| LOGIN |*****|
ENTER THE USERNAME YOU WANT TO LOGIN: LAIBA
ENTER YOUR ACCOUNT PASSWORD: 4567
WRONG INFORMATION!!
NOW YOU HAVE 2 ATTEMPTS LEFT
ENTER THE USERNAME YOU WANT TO LOGIN: lai
ENTER YOUR ACCOUNT PASSWORD: 9876
WRONG INFORMATION!!
NOW YOU HAVE 1 ATTEMPTS LEFT
ENTER THE USERNAME YOU WANT TO LOGIN: laiba
ENTER YOUR ACCOUNT PASSWORD: 0123
YOUR ACCOUNT IS SUCCESSFULL LOGIN!!
|*****| MENU |*****|
OPTION 1 <SIGNUP>
OPTION 2 <LOGIN>
OPTION 3 <EXIT>

```

The compilation results show 0 errors.

COMPLETE CODE:

```
#include <iostream>

using namespace std;

void SIGNUP () {

    string username, password;

    cout<<" || **** || SIGNUP || **** || "<<endl;

    cout << "ENTER THE USERNAME THAT YOU WANT: ";

    cin >> username;

    cout << "ENTER A SECURE PASSWORD: ";

    cin >> password;

    cout<<"SUCCESSFULLY SIGNUP YOUR ACCOUNT!! "<<endl;

}

void LOGIN () {

    string username, password;

    string MYUSERNAME="laiba";

    string MYPASSWORD="0123";

    int totalattempt =3;

    int loginattempt =0;

    cout<<" || **** || LOGIN || **** || "<<endl;

do {

    cout << "ENTER THE USERNAME YOU WANT TO LOGIN: ";

    cin >> username;

    cout << "ENTER YOUR ACCOUNT PASSWORD: ";

    cin >> password;

    if(username==MYUSERNAME && password==MYPASSWORD) {

        cout<<" YOUR ACCOUNT IS SUCCESSFULL LOGIN!!"<<endl;

        break;

    }

}
```

```
        else {
            loginattempt++;

            cout<<"WRONG INFORMATION!!"<<endl;

            cout<<"NOW YOU HAVE "<<totalattempt-loginattempt<<" ATTEMPTS
LEFT"<<endl;

        }
    } while(loginattempt<totalattempt);

    if(loginattempt==totalattempt)

        cout<<"YOU ENTER WRONG PASSWORD 3 TIME LOGIN FAILED!!"<<endl;

}

int main ()
{int op;
    do {
        cout<<" || **** || MENU || **** || "<<endl;
        cout<<" OPTION 1 <SIGNUP>"<<endl;
        cout<<" OPTION 2 <LOGIN>"<<endl;
        cout<<" OPTION 3 <EXIT>"<<endl;
        cin>>op;
        switch(op){
            case 1:
                {
                    SIGNUP ();
                    break;
                }
            case 2:
                {
```



```

        LOGIN ();

        break;

    }

    case 3:

    {

        cout<<"EXITING PROGRAM";

        break;

    }

    default:

        cout<<"PLEASE SELECT OPTION 1,2,3"<<endl;

        break;

    }

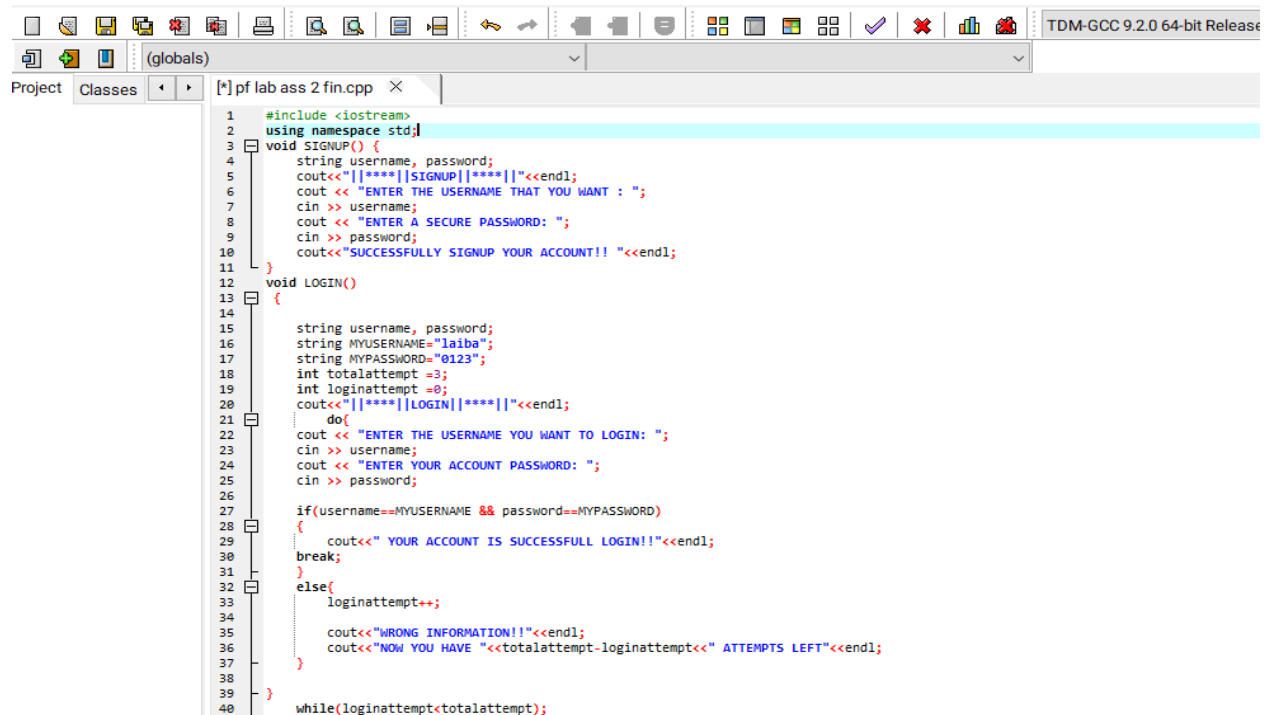
} while (op! =3);

return 0;

}

```

PROGRAM FULL SCREEN:



```

1  #include <iostream>
2  using namespace std;
3  void SIGNUP() {
4      string username, password;
5      cout<<"||***||SIGNUP||***||"<<endl;
6      cout << "ENTER THE USERNAME THAT YOU WANT : ";
7      cin >> username;
8      cout << "ENTER A SECURE PASSWORD: ";
9      cin >> password;
10     cout<<"SUCCESSFULLY SIGNUP YOUR ACCOUNT!! "<<endl;
11 }
12 void LOGIN()
13 {
14     string username, password;
15     string MYUSERNAME="laiba";
16     string MYPASSWORD="0123";
17     int totalattempt =3;
18     int loginattempt =0;
19     cout<<"||***||LOGIN||***||"<<endl;
20     do{
21         cout << "ENTER THE USERNAME YOU WANT TO LOGIN: ";
22         cin >> username;
23         cout << "ENTER YOUR ACCOUNT PASSWORD: ";
24         cin >> password;
25
26         if(username==MYUSERNAME && password==MYPASSWORD)
27         {
28             cout<<" YOUR ACCOUNT IS SUCCESSFULL LOGIN!!"<<endl;
29             break;
30         }
31         else{
32             loginattempt++;
33
34             cout<<"WRONG INFORMATION!!"<<endl;
35             cout<<"NOW YOU HAVE "<<totalattempt-loginattempt<<" ATTEMPTS LEFT"<<endl;
36         }
37     }
38
39     while(loginattempt<totalattempt);
40

```

```

40 while(loginattempt<totalattempt);
41 if(loginattempt==totalattempt)
42     cout<<"YOU ENTER WRONG PASSWORD 3 TIME LOGIN FAILED!!"<<endl;
43
44 }
45
46 int main()
47 {
48     int op;
49     do{
50         cout<<"||****||MENU||****||"<<endl;
51         cout<<" OPTION 1 <SIGNUP>"<<endl;
52         cout<<" OPTION 2 <LOGIN>"<<endl;
53         cout<<" OPTION 3 <EXIT>"<<endl;
54         cin>>op;
55         switch(op)
56         {
57             case 1:
58             {
59                 SIGNUP();
60                 break;
61             }
62             case 2:
63             {
64                 LOGIN();
65                 break;
66             }
67             case 3:
68             {
69                 cout<<"EXITING PROGRAM";
70                 break;
71             }
72             default:
73             {
74                 cout<<"PLEASE SELECT OPTION 1,2,3"<<endl;
75                 break;
76             }
77         }
78         while(op!=3);
79         return 0;
80 }

```

OUTPUT OF COMPLETE PROGRAM:

```

C:\Users\Asad manzoor\Desktop\pf lab ass 2 fin.exe
||****||MENU||****||
OPTION 1 <SIGNUP>
OPTION 2 <LOGIN>
OPTION 3 <EXIT>
1
||****||SIGNUP||****||
ENTER THE USERNAME THAT YOU WANT : laiba
ENTER A SECURE PASSWORD: 0123
SUCCESSFULLY SIGNUP YOUR ACCOUNT!!
||****||MENU||****||
OPTION 1 <SIGNUP>
OPTION 2 <LOGIN>
OPTION 3 <EXIT>
2
||****||LOGIN||****||
ENTER THE USERNAME YOU WANT TO LOGIN: lai
ENTER YOUR ACCOUNT PASSWORD: 456
WRONG INFORMATION!!
NOW YOU HAVE 2 ATTEMPTS LEFT
ENTER THE USERNAME YOU WANT TO LOGIN: laiba
ENTER YOUR ACCOUNT PASSWORD: 0123
YOUR ACCOUNT IS SUCCESSFULL LOGIN!!
||****||MENU||****||
OPTION 1 <SIGNUP>
OPTION 2 <LOGIN>
OPTION 3 <EXIT>
3
EXITING PROGRAM
-----
Process exited after 244.1 seconds with return value 0
Press any key to continue . . .

```