**A Project Report**

**On**

***ONLINE CHATTING***





**Submitted By**

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Class: - XII C

**Under the Guidance of**

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**CE R T I F I C A T E**

This is to certify that SHUBHAM YADAV

Of Class XII C has prepared the report on the Project entitled “Online Chatting”. The report is the result of his efforts & endeavors. The report is found worthy of acceptance as final project report for the subject Computer Science of Class XII. He has prepared the report under my guidance.

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CER T IF ICAT E

The project report entitled

“ONLINE CHATTING”,

Submitted by SHUBHAM YADAV of Class XII C for the CBSE Senior Secondary Examination class XII of Computer Science at Kendriya Vidyalaya No. 2, Delhi Cantt has been examined.

***SIGNATURE OF EXAMINER***

**D E C L A R A T I O N**

I hereby declare that the project work entitled “ONLINE CHATTING”, submitted to Department of Computer Science, Kendriya Vidyalaya No. 2, Delhi Cantt, New Delhi is prepared by me. All the coding are result of my personal efforts.

SHUBHAM YADAV

Class XII C

**A C K N O W L E D G E M E N T**

I would like to express a deep sense of thanks & gratitude to my project guide Mr. Sanwar Mal Sir for guiding me immensely through the course of the project. He always evinced keen interest in my work. His constructive advice & constant motivation have been responsible for the successful completion of this project.

My sincere thanks goes to Mrs. Bharthi Kukkal, Our principal ma’am, for her co-ordination in extending every possible support for the completion of this project.

I also thank to my parents and sister for their motivation & support. I must thank my classmates for their timely help & support for compilation of this project.

**Last but not the least, I would like to thank all those who had helped directly or indirectly towards the completion of this project.**

SHUBHAM YADAV

Class: XII C

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**HARDWARE AND SOFTWARE USED**

|  |  |
| --- | --- |
| **HARDWARE** | **SOFTWARE** |
| Monitor | *Dev C++* |
| Ram | *MySQL 8.0* |
| Hard Disk | *Google Chrome* |
| Keyboard | *Windows 10* |
| Mouse | *PhpMyAdmin* |
| Microprocessor | *Notepad* |
| SMPS | *MS Word* |

**ABOUT PROJECT**

This is a simple menu driven program which lets you send message to other users in real time. It uses embedded DML MySQL commands to connect to MySQL database. This program is capable of signup, login, sending message, receiving message, viewing other users profile, viewing your own profile, changing password, logout and deleting your account.

**HEADER FILES USED**

* *iostream*
* *stdio.h*
* *stdlib.h*
* *windows.h*
* *conio.h*
* *string*
* *process.h*
* *ctime*
* *fstream*
* *mysql.h*
* *mysql\_error.h*

**FUNCTIONS USED**

|  |  |
| --- | --- |
| **LIBRARY FUNCTIONS** | **USER DEFINED FUNCTIONS** |
| system(“cls”) | *cin\_pass()* |
| while() | *is\_empty()* |
| mysql\_init() | *database\_connect()* |
| getch() | *fullscreen()* |
| exit() | *choice()* |
| mysql\_real\_connect() | *check()* |
| if() else | *front\_page()* |
| keybd\_event() | *signup()* |
| mysql\_error() | *login()* |
| switch() | *u\_choice()* |
| mysql\_close() | *search()* |
| for() | *profile()* |
| getline() | *f\_profile()* |
| cin.ignore() | *message()* |
| itoa() | *logout()* |
| strcpy() | *acc\_delete()* |
| mysql\_query() | *pass\_change()* |
| mysql\_store\_result() | *home\_page()* |
| mysql\_fetch\_row() | *main()* |
| ctime() |  |

**MYSQL**

**Server:** [sql12.freemysqlhosting.net](http://sql12.freemysqlhosting.net/)

**Name:** sql12276411

**Username:** sql12276411

**Password:** lZkUNVMES8

**Port number:** 3306

**Database:** [sql12276411](http://www.phpmyadmin.co/db_structure.php?server=1&db=sql12276411)

**Tables:**

**USERS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field | Type | Null | Key | Default | Extra |
| user\_id | smallint(6) | NO | PRI | NULL | auto\_increment |
| f\_name | varchar(40) | NO |  | NULL |  |
| l\_name | varchar(40) | NO |  | NULL |  |
| dob | date | NO |  | NULL |  |
| email | varchar(50) | NO | UNI | NULL |  |
| username | varchar(40) | NO | UNI | NULL |  |
| pass | char(40) | NO |  | NULL |  |
| r\_date | datetime | NO |  | NULL |  |

**MSG**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field | Type | Null | Key | Default | Extra |
| uid | varchar(80) | NO |  | NULL |  |
| f\_name | varchar(40) | NO |  | NULL |  |
| message | text | NO |  | NULL |  |

**WORKING DESCRIPTION**

This program is designed to keep the records of users.

This program consists of majorly 3 options as follows

1. TO SIGNUP

2. TO LOGIN:-

a) SEND MESSAGE

b) SEARCH PROFILE

c) GO TO YOUR PROFILE

d) LOGOUT

3. EXIT

CODING

#include<iostream>

#include<stdio.h>

#include<stdlib.h>

#include<windows.h>

#include<conio.h>

#include<string>

#include<process.h>

#include<ctime>

#include<fstream>

#include<C:\Program Files\MySQL\MySQL Server 8.0\include\mysql.h>

#include<C:\Program Files\MySQL\MySQL Server 8.0\include\mysqld\_error.h>

using namespace std;

MYSQL \*obj;

MYSQL\_RES \*result = new MYSQL\_RES;

MYSQL\_ROW row;

string query\_s;

char query[1000];

int execute;

void fullscreen();

string cin\_pass();

int is\_empty(string);

class online\_chatting {

private:

void database\_connect();

int choice(int ch);

protected:

string f\_name;

string l\_name;

string username;

string email;

string password;

string r\_date;

string \_dob;

struct dob {

int year;

int month;

int date;

}inp;

int check(dob inp);

public:

void front\_page();

void signup();

int login();

};

class user: public online\_chatting {

void u\_choice(int);

int search();

void profile();

void f\_profile();

void message(int t=0);

void logout();

void acc\_delete();

void pass\_change();

public:

void home\_page();

}u;

int main() {

fullscreen();

u.front\_page();

u.home\_page();

}

void online\_chatting::front\_page() {

database\_connect();

int ch;

do {

system("cls");

cout<<"\n\n\n\n\n\n\n\n\n\n\n\n\n\n\t\t\t\t\t\t\t\t WELCOME TO, ONLINE CHATTING";

cout<<"\n\n\n\n\n\n\t\t\t\t\t\t\t\t 1. LOGIN";

cout<<"\t|\t2. SIGN UP";

cout<<"\n\n\t\t\t\t\t\t\t\t (Press 0 to exit)";

cout<<"\n\t\t\t\t\t\t\t\t \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n\t\t\t\t\t\t\t\t Enter your choice: ";

cin>>ch;

}while(choice(ch)==1);

}

void online\_chatting::database\_connect() {

obj = mysql\_init(NULL);

if(!obj) {

cout<<"An error occured, the object can't be created'. "<<mysql\_error(obj);

getch();

exit(0);

}

if(!mysql\_real\_connect(obj, "sql12.freemysqlhosting.net", "sql12276411", "lZkUNVMES8", "sql12276411", 3306,NULL,0)) {

cout<<"It seems your network is down or database server is not working."<<mysql\_error(obj);

cout<<"\n\nPress any key to exit...";

getch();

exit(0);

}

}

int online\_chatting::check(dob inp) {

if(inp.year>2019 || inp.month<1 || inp.month>12 || inp.date<1)

{

cout<<"\t\t\tSorry invalid date of birth... Enter again\n";

return 0;

}

if(inp.month==2)

{

if((inp.year%4==0 && inp.date>29) || (inp.year%4!=0 && inp.date>28))

{

cout<<"\t\t\tSorry invalid date of birth... Enter again\n";

return 0;

}

}

if((inp.month==1 || inp.month==3 || inp.month==5 || inp.month==7 || inp.month == 8 || inp.month == 10 || inp.month == 12) && inp.date>31)

{

cout<<"\t\t\tSorry invalid date of birth... Enter again\n";

return 0;

}

if((inp.month==4 || inp.month==6 || inp.month==9 || inp.month==11) && inp.date>30)

{

cout<<"\t\t\tSorry invalid date of birth... Enter again\n";

return 0;

}

return 1;

}

int online\_chatting::choice(int ch) {

switch(ch) {

case 0:

system("cls");

cout<<"Exiting...";

mysql\_close(obj);

exit(0);

case 1:

if(login()==1)

return 0;

break;

case 2:

signup();

break;

default:

cout<<"\n\t\t\t\t\t\t\t\t Sorry wrong choice selected... Enter again.";

getch();

break;

}

return 1;

}

void online\_chatting::signup() {

int a=2;

do {

system("cls");

cout<<"\n\n\t\t\t\t\t\t\t\t\t\tSIGN UP\n\n\t\t\t";

for(int i=0;i<59;i++)

cout<<"==";

cin.ignore();

do {

cout<<"\n\n\t\t\tEnter your first name: ";

getline(cin, f\_name);

if(is\_empty(f\_name))

cout<<"\t\t\tField cannot be blank.";

}while(is\_empty(f\_name));

do {

cout<<"\n\t\t\tEnter your last name: ";

getline(cin, l\_name);

if(is\_empty(l\_name))

cout<<"\t\t\tField cannot be blank.";

}while(is\_empty(l\_name));

do {

cout<<"\n\t\t\tEnter date of birth: \n\t\t\t Enter year (in YYYY): ";

cin>>inp.year;

cout<<"\t\t\tEnter month (in MM): ";

cin>>inp.month;

cout<<"\t\t\tEnter date (in DD): ";

cin>>inp.date;

}while(check(inp)==0);

cin.ignore();

do {

cout<<"\n\t\t\tEnter your email: ";

getline(cin, email);

if(is\_empty(email))

cout<<"\t\t\tField cannot be blank.";

}while(is\_empty(email));

do {

cout<<"\n\t\t\tEnter your username: ";

getline(cin, username);

if(is\_empty(username))

cout<<"\t\t\tField cannot be blank.";

}while(is\_empty(username));

do {

cout<<"\n\t\t\tEnter your password: ";

password = cin\_pass();

if(is\_empty(password))

cout<<"\n\t\t\tField cannot be blank.";

}while(is\_empty(password));

//MYSQL QUERY STARTS

char y[10]={0},d[10]={0},m[10]={0};

itoa(inp.year,y,10);

itoa(inp.month,m,10);

itoa(inp.date,d,10);

query\_s = "INSERT INTO users (f\_name,l\_name,dob,email,username,pass,r\_date) VALUES('"+f\_name+"','"+l\_name+"','"+y+"-"+m+"-"+d+"','"+email+"','"+username+"','"+password+"',now())";

strcpy(query, query\_s.c\_str());

execute = mysql\_query(obj, query);

if(execute)

{

cout<<"\n\t\t\tSorry some error occured. MySQL error("<<mysql\_error(obj)<<")"<<endl;

cout<<"\n\t\t\tDo you want to enter again.(Yes -> 1 ... No -> 0): ";

cin>>a;

}

//MYSQL QUERY ENDS

}while(a==1);

if(a==0)

cout<<"\n\t\t\tRequest aborted.";

else

cout<<"\n\t\t\tSuccessfully registered... Please login to continue";

getch();

}

int online\_chatting::login() {

system("cls");

cout<<"\n\n\t\t\t\t\t\t\t\t\t\tLOGIN\n\n\t\t\t";

for(int i=0;i<59;i++)

cout<<"==";

cin.ignore();

do {

cout<<"\n\n\t\t\tEnter your username: ";

getline(cin, username);

if(is\_empty(username))

cout<<"\t\t\tField cannot be blank.";

}while(is\_empty(username));

do {

cout<<"\n\n\t\t\tEnter your password: ";

password = cin\_pass();

if(is\_empty(password))

cout<<"\n\t\t\tField cannot be blank.";

}while(is\_empty(password));

query\_s = "SELECT \* FROM users where username='"+username+"'";

strcpy(query,query\_s.c\_str());

execute = mysql\_query(obj, query);

if(execute) {

cout<<"\n\n\t\t\tAn error occured MYSQL("<<mysql\_error(obj)<<")";

getch();

return 0;

}

result = mysql\_store\_result(obj);

row=mysql\_fetch\_row(result);

if(row==NULL) {

cout<<"\n\n\t\t\tUsername not found...";

getch();

return 0;

}

if((row[6]!=password)) {

cout<<"\n\n\t\t\tWrong username and password";

getch();

return 0;

}

f\_name=row[1];

l\_name=row[2];

\_dob=row[3];

email=row[4];

r\_date=row[7];

return 1;

}

void user::home\_page() {

time\_t now = time(0);

char\* dt = ctime(&now);

int ch;

do {

system("cls");

cout<<"\n\n\t\t\t\t\t\t\t\t\t\tHOME PAGE\n\n\t\t\t";

for(int i=0;i<59;i++)

cout<<"==";

cout<<"\n\n\t\t\t Welcome, "<<f\_name<<"\t\t\t\t\t\t\t\t\t "<<dt<<"\t\t\t";

for(int i=0;i<59;i++)

cout<<"==";

cout<<"\n\n\n\n\n\t\t\t\t\t1. Send Message\n\n\n\t\t\t\t\t2. Search Profile\n\n\n\t\t\t\t\t3. Go to your Profile\n\n\n\t\t\t\t\t4. Logout";

cout<<"\n\n\n\n\t\t\t\t\tEnter your choice: ";

cin>>ch;

u\_choice(ch);

}while(1);

}

void user::u\_choice(int ch) {

switch(ch)

{

case 1:

message();

break;

case 2:

f\_profile();

break;

case 3:

profile();

break;

case 4:

logout();

break;

default:

cout<<"You have entered wrong choice... Enter again.";

getch();

break;

}

}

int user::search() {

system("cls");

string usr;

cin.ignore();

cout<<"\n\t\tEnter username to search: ";

getline(cin, usr);

query\_s = "SELECT \* FROM users where username = '"+usr+"'";

strcpy(query, query\_s.c\_str());

execute = mysql\_query(obj, query);

if(execute) {

cout<<"\n\t\tUh Oh! Some error occured MYSQL("<<mysql\_error(obj)<<")";

getch();

return 0;

}

result = mysql\_store\_result(obj);

row = mysql\_fetch\_row(result);

if(row == NULL) {

cout<<"\n\t\tNo user found with this username.";

getch();

return 0;

}

return 1;

}

void user::f\_profile() {

if(search()==0)

return;

system("cls");

cout<<"\n\t\t\t\t\t\t\t\t\t\t"<<row[1]<<"'s Profile\n\t\t\t\t\t";

for(int i=0;i<50;i++)

cout<<"\_\_";

cout<<"\n\n\n\n\n\n\t\t\t\t\t Name: "<<row[1]<<" "<<row[2];

cout<<"\n\n\n\t\t\t\t\t Email: "<<row[4];

cout<<"\n\n\n\t\t\t\t\t Username: "<<row[5];

cout<<"\n\n\n\t\t\t\t\t Date of Birth: "<<row[3];

cout<<"\n\n\n\t\t\t\t\t Registration Date: "<<row[7];

cout<<"\n\n\n\n\n\n\n\t\t\t\t\t\t\t 1. MESSAGE\t\t|\t\t2. GO TO HOMEPAGE";

cout<<"\n\n\t\t\t\t\t\t\t Enter your choice: ";

int a;

cin>>a;

do {

if(a==1)

message(1);

else if(a==2)

return;

else {

cout<<"Wrong input.. Enter again";

getch();

}

}while(a!=1 || a!=2);

}

void user::logout() {

char ch;

cout<<"\n\t\t\t\t\t\tDo you want to logout(Y/N): ";

cin>>ch;

if(ch=='Y' || ch=='y') {

front\_page();

}

else if(ch=='N' || ch=='n') {

return;

}

else {

cout<<"\t\t\t\t\t\t\tWrong input...";

getch();

}

}

void user::profile() {

int a;

do {

system("cls");

cout<<"\n\t\t\t\t\t\t\t\t\t\tYour Profile\n\t\t\t\t\t";

for(int i=0;i<50;i++)

cout<<"\_\_";

cout<<"\n\n\n\n\n\n\t\t\t\t\t Name: "<<f\_name<<" "<<l\_name;

cout<<"\n\n\n\t\t\t\t\t Email: "<<email;

cout<<"\n\n\n\t\t\t\t\t Username: "<<username;

cout<<"\n\n\n\t\t\t\t\t Date of Birth: "<<\_dob;

cout<<"\n\n\n\t\t\t\t\t Registration Date: "<<r\_date;

cout<<"\n\n\n\n\n\n\n\t\t\t\t\t\t 1. HOMEPAGE\t|\t 2. CHANGE PASSWORD\t|\t 3. DELETE YOUR ACCOUNT";

cout<<"\n\n\t\t\t\t\t\t Enter your choice: ";

cin>>a;

switch(a) {

case 1:

return;

case 2:

pass\_change();

break;

case 3:

acc\_delete();

break;

default:

cout<<"Wrong input enter again";

getch();

break;

}

}while(a>3||a<1);

}

void user::pass\_change() {

system("cls");

string pass;

cout<<"\n\n\t\t\t Enter your current password: ";

cin.ignore();

pass = cin\_pass();

if(pass != password) {

cout<<"\n\t\t\t Sorry wrong password";

getch();

return;

}

cout<<"\n\n\t\t\t Enter new password: ";

pass = cin\_pass();

query\_s = "UPDATE users set pass = '"+pass+"'";

strcpy(query, query\_s.c\_str());

execute = mysql\_query(obj, query);

if(!execute) {

cout<<"\n\t\t\tPassword changed... Login again";

getch();

front\_page();

}

else {

cout<<"\n\t\t\tAn error occured MYSQL("<<mysql\_error(obj)<<")";

getch();

}

}

void user::acc\_delete() {

system("cls");

char ch;

cout<<"\n\n\t\t\t ALL YOUR DATA WILL BE DELETED! DO YOU WANT TO DELETE YOUR ACCOUNT(Y/N): ";

cin>>ch;

if(ch=='Y' || ch=='y') {

query\_s = "DELETE FROM users where username = '"+username+"'";

strcpy(query, query\_s.c\_str());

execute = mysql\_query(obj, query);

if(!execute) {

system("cls");

cout<<"\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\t\t\t\t\t\t\t\t ACCOUNT DELETED SUCCESSFULLY";

getch();

front\_page();

}

else {

cout<<"\n\t\t\t An error occured MYSQL("<<mysql\_error(obj)<<")";

getch();

}

}

else if(ch=='N' || ch=='n');

else {

cout<<"\n\t\t\t Wrong input";

getch();

}

}

void user::message(int t) {

if(t==0)

if(search()==0)

return;

int ch=1;

string usr, msg;

usr = row[5];

do {

system("cls");

cout<<"\n\t\t\t\t\t\t\t\t\t\t\t"<<usr<<"\n\t\t\t\t\t";

for(int i=0;i<50;i++)

cout<<"\_\_";

query\_s = "SELECT f\_name, message from msg where uid = '"+username+usr+"' OR uid = '"+usr+username+"'";

strcpy(query, query\_s.c\_str());

execute = mysql\_query(obj, query);

if(!execute) {

result = mysql\_store\_result(obj);

while(row = mysql\_fetch\_row(result)) {

if(row == NULL) {

cout<<"\n\n\n\n\t\t\t\t\t\t\t\t\tNo messages yet.";

getch();

break;

}

cout<<"\n\n\t\t\t\t\t"<<row[0]<<": "<<row[1]<<endl<<endl;

}

cout<<"\n\t\t\t\t\t";

for(int i=0;i<50;i++)

cout<<"\_\_";

cout<<"\n\n\t\t\t\t\t";

cout<<"1. Refresh \t\t\t\t 2. Reply \t\t\t\t 3. Home Page";

cout<<"\n\n\t\t\t\t\t";

cout<<"Enter your choice: ";

cin>>ch;

switch(ch) {

case 1:

break;

case 2:

cin.ignore();

do {

cout<<"\n\n\t\t\t\t\t";

cout<<"Enter message: ";

getline(cin, msg);

if(is\_empty(msg))

cout<<"\t\t\t\t\tSorry blank message is not allowed.";

}while(is\_empty(msg));

query\_s = "INSERT INTO msg values('"+username+usr+"','"+f\_name+"','"+msg+"')";

strcpy(query, query\_s.c\_str());

execute = mysql\_query(obj, query);

if(execute) {

cout<<"\n\t\t\t\t\tSorry an error occured MYSQL("<<mysql\_error<<")";

}

break;

case 3:

home\_page();

default:

cout<<"\n\n\t\t\t\t\t";

cout<<"Sorry wrong input enter again";

getch();

break;

}

}

else {

cout<<"\n\t\t\t\t\tSorry an error occured MYSQL("<<mysql\_error(obj)<<")";

return;

}

}while(ch==1 || ch == 2);

}

void fullscreen() {

keybd\_event(VK\_MENU,0x38,0,0);

keybd\_event(VK\_RETURN,0x1c,0,0);

keybd\_event(VK\_RETURN,0x1c,KEYEVENTF\_KEYUP,0);

keybd\_event(VK\_MENU,0x38,KEYEVENTF\_KEYUP,0);

}

string cin\_pass() {

char ch, pass[40];

string password;

int i=0;

while(ch!=13)

{

ch=getch();

if(ch!=8)

{

pass[i]=ch;

i++;

}

else if(ch==8)

if(i>0)

i--;

}

pass[i-1]='\0';

password = pass;

return password;

}

int is\_empty(string ch) {

if(ch=="")

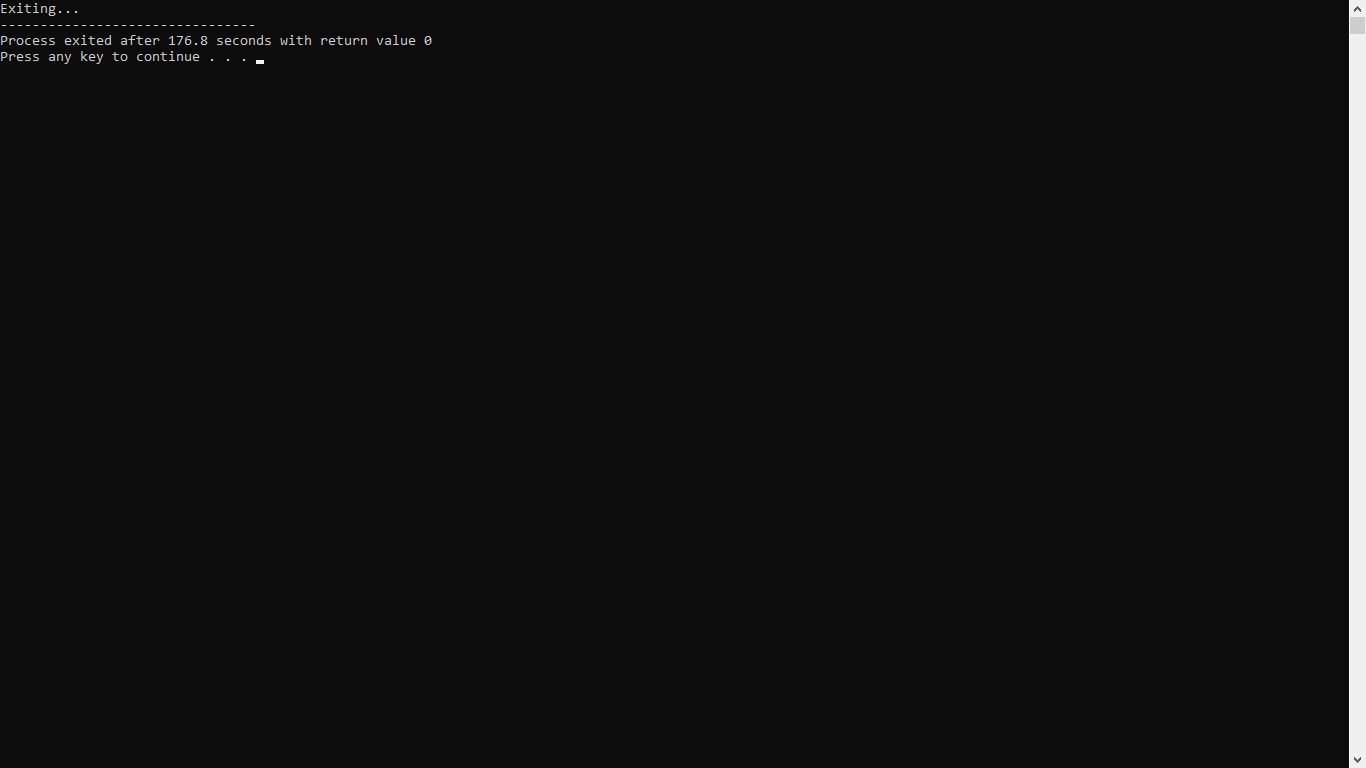
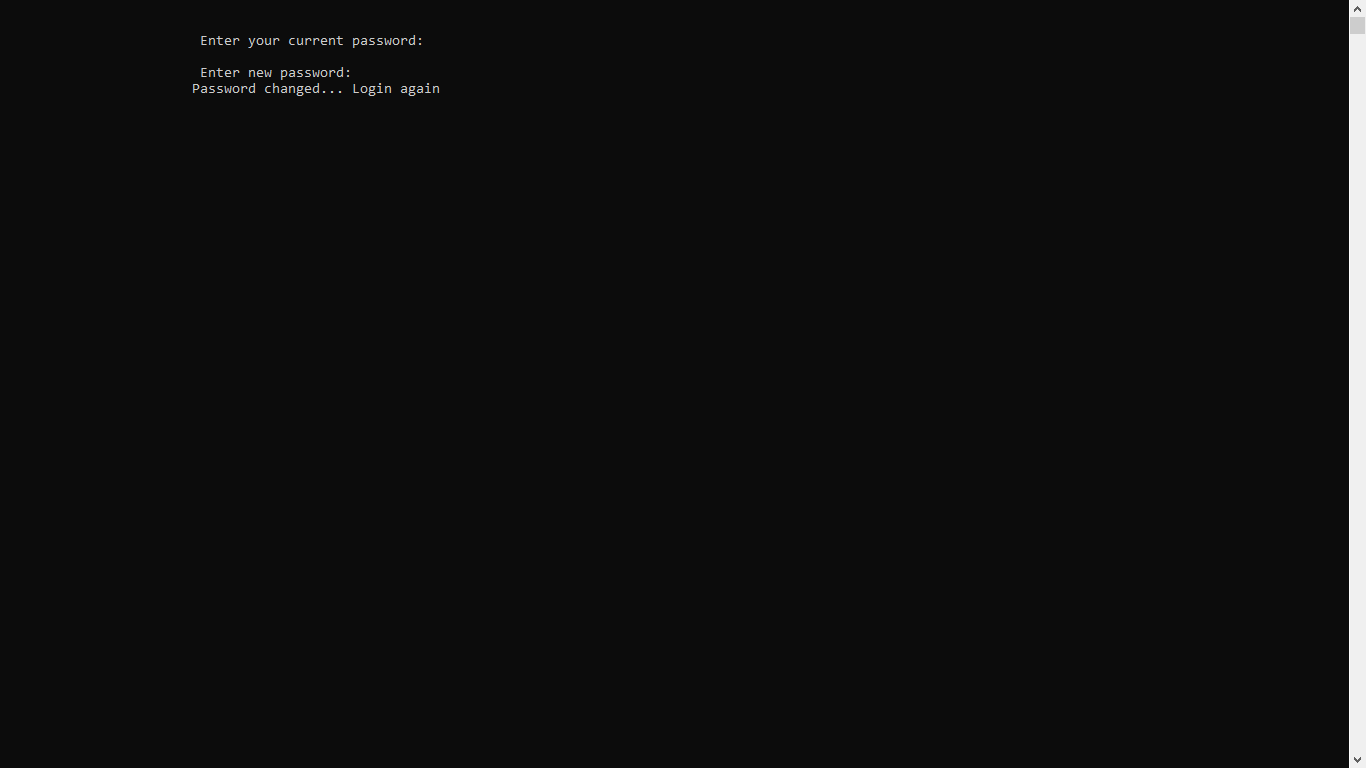
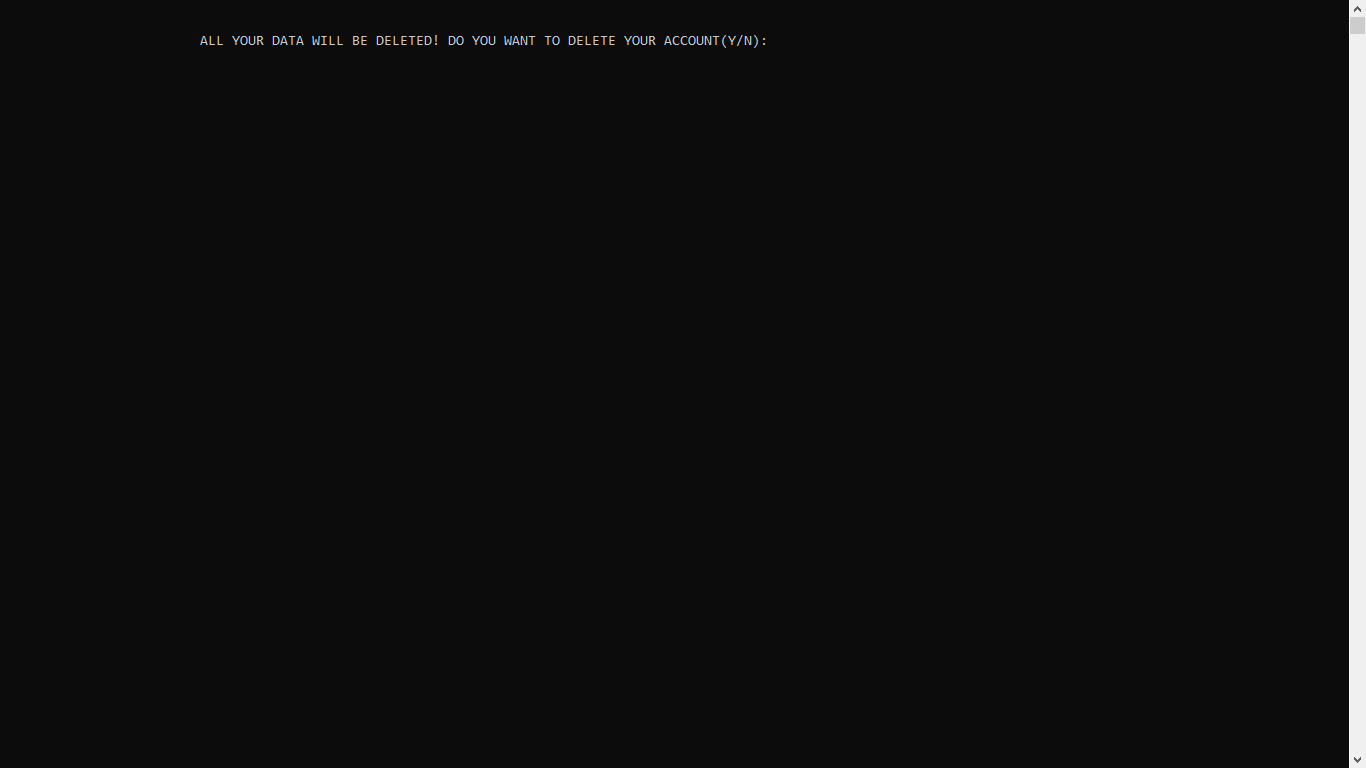
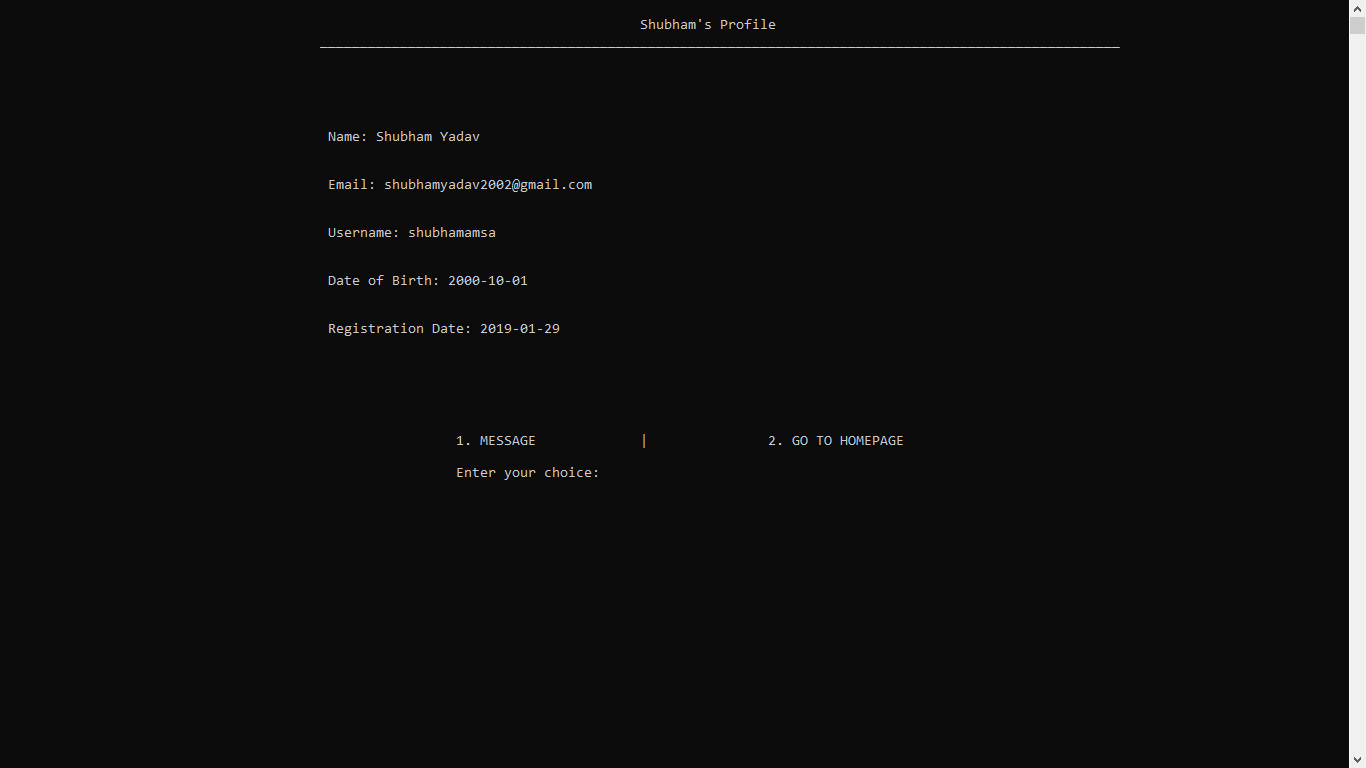
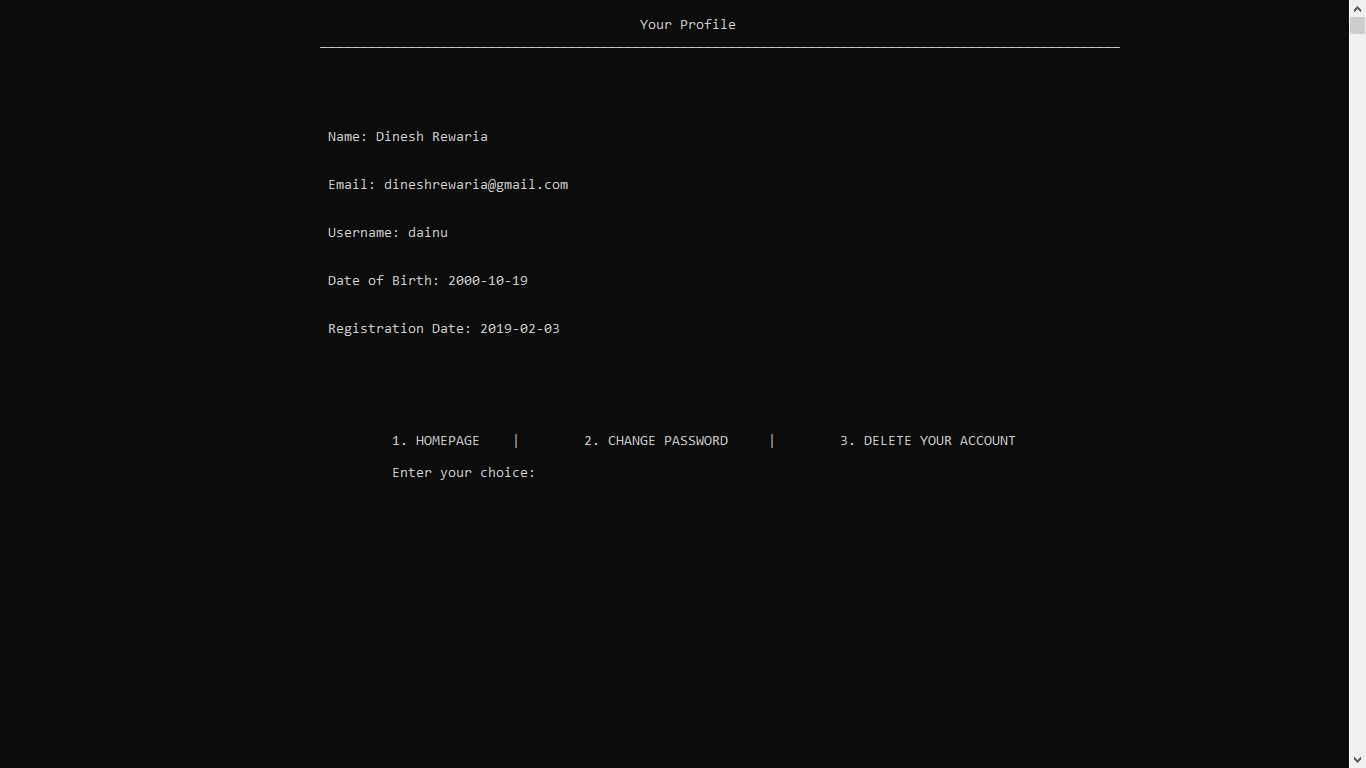
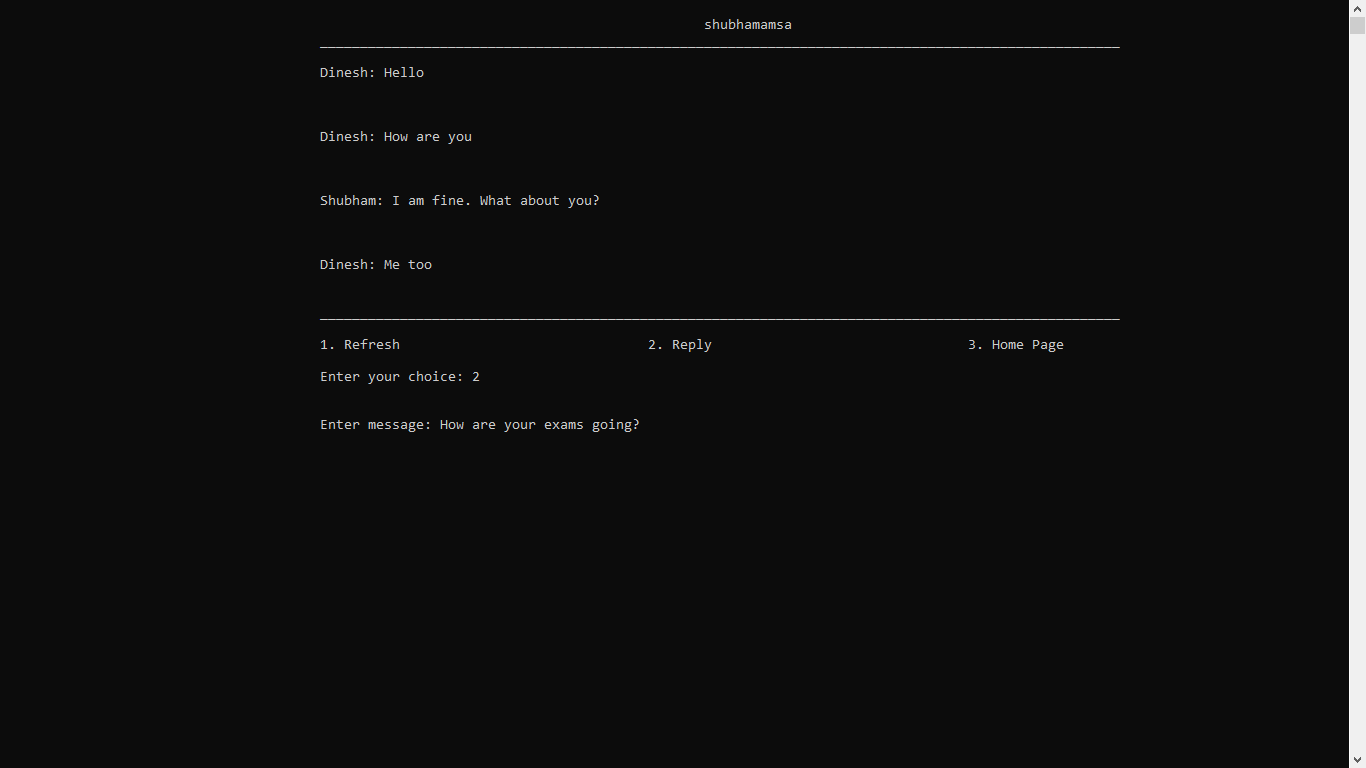
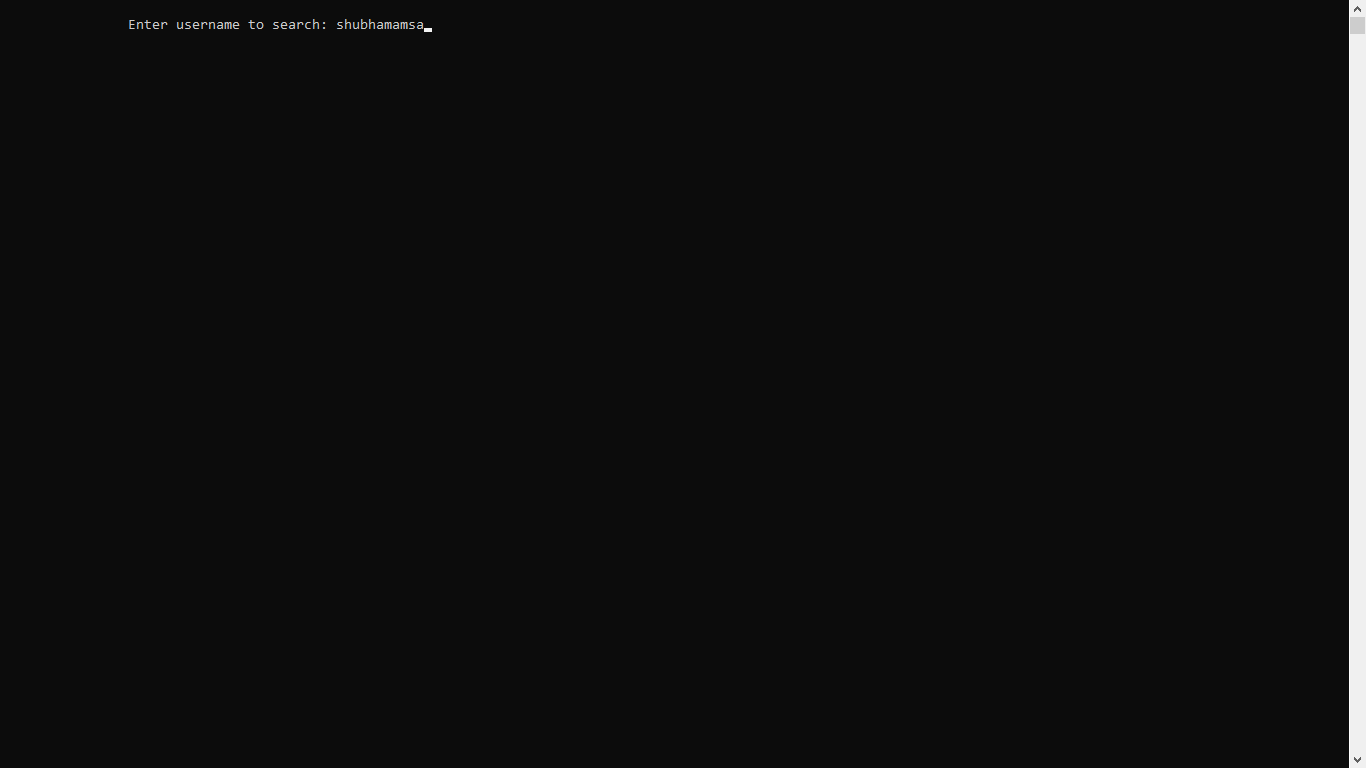
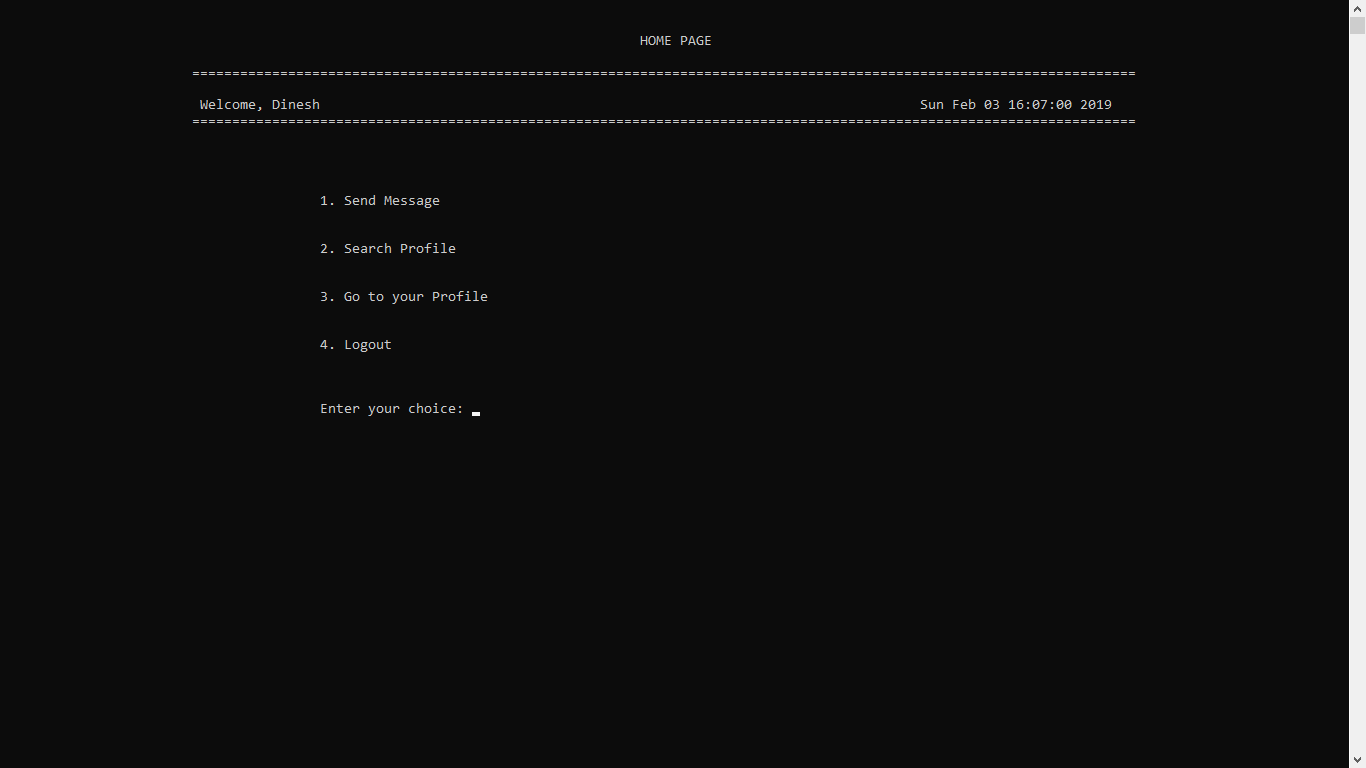
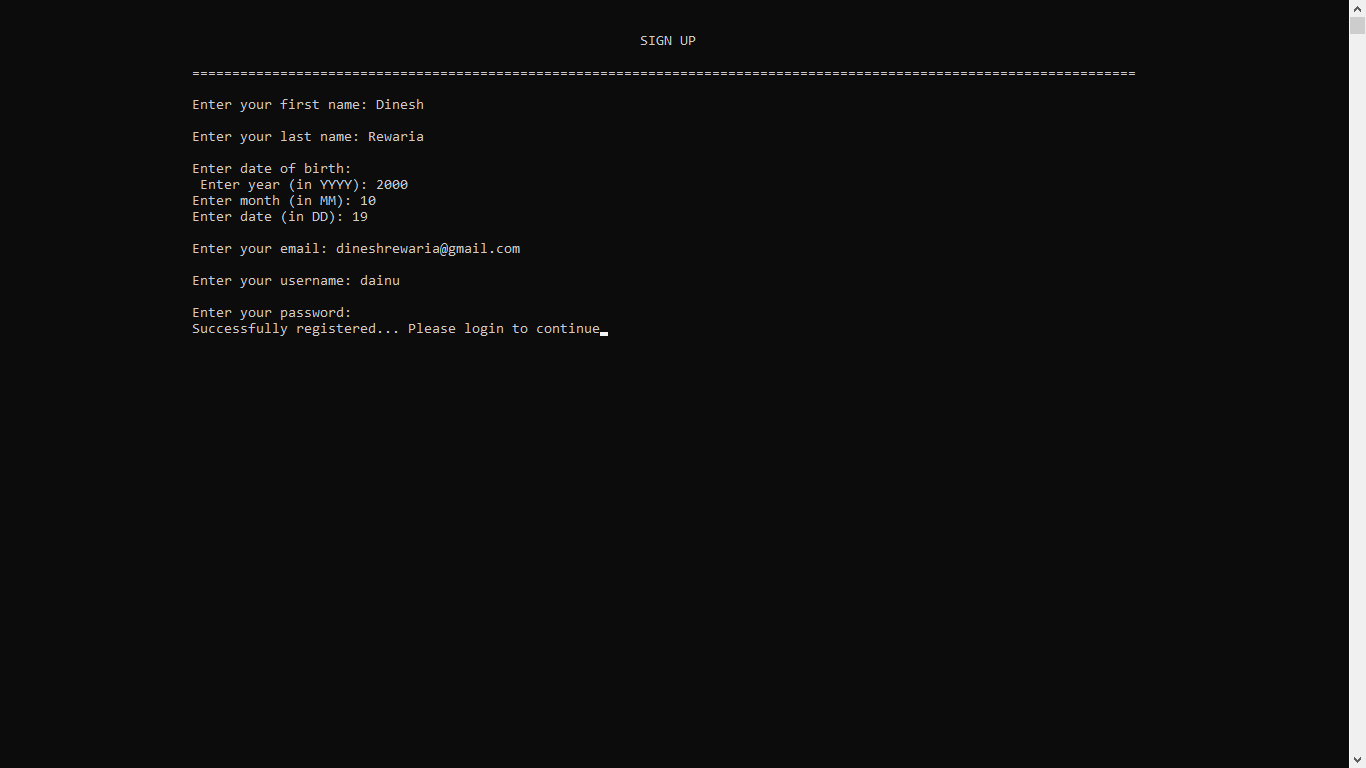
return 1;

else

return 0;

}

OUTPUT SCREENS



BIBLIOGRAPHY

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2 https://stackoverflow.com/

3 https://www.tutorialspoint.com/

4 https://www.youtube.com/

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