**Qwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopas afghjklzxcvbnmqwertypikujiggyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnm**

|  |
| --- |
| C++ MEMORY GAME  Project prepared by:  Jigyasa Nagpal  Class: 12-D 2019-20 St. Francis de Sales Sr. Sec. School |

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**Certificate**

This is to certify that Jigyasa Nagpal of class twelve, St. Francis de Sales Senior Secondary School, New Delhi, has successfully completed her computer science investigatory project under the guidance of Mrs. Sapna Gupta (subject teacher) during the year 2019-20 for the partial fulfillment of the Computer Science Practical Examination conducted by CBSE.

**Board Roll No. :**

**Signature of Internal Signature of External**

**Examiner Examiner**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Acknowledgement**

I would like to express my special thanks of gratitude to my teacher Mrs. Sapna Gupta as well as our principal Fr. Anthony, who gave me the golden opportunity to do this wonderful project on C++ MEMORY GAME, which also helped me in doing a lot of Research and I came to know about so many new things.  
Secondly I would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

**HEADER FILES USED AND THEIR PURPOSE**

1. **FSTREAM.H** – For file handling
2. **CONIO.H** – For clrscr() and getch() functions
3. **STDIO.H** – For standard I/O operations
4. **STRING.H** – For string handling
5. **CTYPE.H** – For character handling
6. **IOSTREAM.H** – To invoke commonly used functions
7. **DOS.H**– For delay() function

**C++ ASPECTS USED AND PROJECT DESCRIPTION**

**This project mainly works on the CLASSES AND OBJECTS and FILE HANDLING aspect of C++.**

**The program is designed for the user to play two different kind of memory games, one based on the name of places and the other on the titles of the T.V. shows. Both the games have three levels of 100 points each with the time of display managing itself with every next level. One wrong entry and the game is over. A file is taken into account for the storage of scores of the player.**

**CODING**

// \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* COMPUTER MEMORY GAME \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#include<iostream.h>

#include<ctype.h>

#include<stdio.h>

#include<conio.h>

#include<string.h>

#include<dos.h>

#include<fstream.h>

void score();

int f=0;

int s;

class memory

{

public :

void Q1();

void Q2();

void Q3();

void L1();

void L2();

void L3();

}mm;

void main()

{

clrscr();

int ch;

do

{

clrscr();

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

gotoxy(20,y);cout<<"\n";

cout<<"\n\t\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\a\n\t \*.\*.\* WELCOME TO THE WORLD OF MEMORY GAME \*.\*.\* ";

cout<<"\n\t\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\n ";delay(1500);

cout<<"\a\a\b\b\n \t\*.\*.\*.\*.\*.\*.\*.\*.\*. M E N U \*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.";

cout<<endl<<endl;

delay(1000);cout<<"\n \t1. Game for name of Places ";

delay(1000);cout<<"\n \t2. Game for name of TV Series ";

delay(1000);cout<<"\n \t3. Help";

delay(1000);cout<<"\n \t4. Exit"<<endl<<endl;

delay(1000);cout<<"\n \t Enter your choice :-";

cout<<endl<<endl<<endl<<endl;

cin>>ch;

if(ch==1)

{

clrscr();

mm.Q1();

}

if(ch==2)

{

clrscr();

mm.L1();

}

if(ch==3)

{

clrscr();

cout<<"\n\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\* H E L P \*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\n\n YOU WILL BE SEEING NAMES OF THINGS WHICH WILL DISAPPEAR ";

cout<<"\n\n AFTER A FEW SECONDS. YOU WILL THEN HAVE TO ENTER WHAT ";

cout<<"\n\n YOU HAVE SEEN. ANY WRONG ENTRY YOU LOSE THE GAME ";

cout<<"\n\n OTHERWISE YOU MOVE TO THE NEXT STEP. FOR EVERY CORRECT ";

cout<<"\n\n STEP YOU GET 100 POINTS. ENTER ANY KEY TO CONTINUE. ";

getch();

}

}while(ch!=4);

gotoxy(40,12);

cout<<"\n\t\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\a\a\b\a\a\n \t\*.\*.\* THANK YOU FOR PLAYING THIS GAME \*.\*.\* ";

cout<<"\n\t\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

getch();

}

void memory::Q1()

{

f=0;

clrscr();

char a[]="VIDYAMANDIR CLASSES";

char b[]="PITAMPURA";

char c[30],d[30];

cout<<"\n"<<a<<"\n"<<b;

delay(3000);

clrscr(); cout<<"\n\*\* ENTER WHAT YOU HAVE SEEN :- ";

cout<<"\n";

gets(c);

gets(d);

strupr(c);

strupr(d);

if((strcmp(a,c)==0)&&(strcmp(b,d)==0))

{

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\n \*.\*.\* CONGRATULATIONS YOU HAVE GIVEN THE CORRECT ANSWER \*.\*.\* ";

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

getch();

f+=100;

cout<<"\n\*..\*..\* PRESS ANY KEY TO CONTINUE \*..\*..\* ";

getch();

clrscr();

mm.Q2();

}

else

{

clrscr();

cout<<"\n\*\* SORRY YOU HAVE GIVEN THE WRONG ANSWER \*\* ";

cout<<"\n\*\*. TRY AGAIN \*\*. ";

getch();

score();

}

}

void memory::Q2()

{

clrscr();

char c[20],d[20];

char a[20]="INDIANAPOLIS";

char b[20]="WOLVERHAMPTON";

cout<<a<<" "<<"\n"<<b;

delay(4000);

clrscr();

cout<<"\*\*ENTER WHAT YOU HAVE SEEN";

cout<<"\n";

gets(c);

gets(d);

strupr(c);

strupr(d);

if((strcmp(a,c)==0)&&(strcmp(b,d)==0))

{

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\n \*.\*.\*CONGRATULATIONS YOU HAVE GIVEN THE CORRECT ANSWER\*.\*.\* ";

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

f+=100;

cout<<"\n"<<"\*..\*..\* PRESS ANY KEY TO CONTINUE \*..\*..\*";

getch();

clrscr();

mm.Q3();

}

else

{

cout<<"\n\*\* SORRY YOU HAVE GIVEN THE WRONG ANSWER \*\*";

cout<<"\n\*\* TRY AGAIN \*\*";

getch();

score();

}

}

void memory::Q3()

{

char c[30],d[30];

char a[]="THIRUVANANTHAMPURAM";

char b[]="VISAKHAPATNAM";

cin>>c>>d;

cout<<a<<"\n"<<b;

delay(5000);

clrscr();

cout<<"\*\* ENTER WHAT YOU HAVE SEEN :-";

cout<<"\n";

gets(c);

gets(d);

strupr(c);

strupr(d);

if((strcmp(a,c)==0)&&(strcmp(b,d)==0))

{

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\n \*.\*.\* CONGRATULATIONS YOU HAVE GIVEN THE CORRECT ANSWER:- \*.\*.\* ";

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

getch();

f+=100;

cout<<"\n"<<"\*..\*..\* PRESS ANY KEY TO CONTINUE \*..\*..\*";

getch();

clrscr();

score();

}

else

{

cout<<"\n\*\* SORRY YOU HAVE GIVEN THE WRONG ANSWER \*\*";

cout<<"\n\*\* TRY AGAIN \*\*";

getch();

score();

}

}

void score()

{

fstream j;

j.open("score.txt",ios::in|ios::out);

j<<f;

j.close();

clrscr();

fstream j1;

j1.open("score.txt",ios::in|ios::out);

while(!j1.eof())

{

j1>>s;

}

cout<<"YOUR FINAL SCORE IS: "<<s;

getch();

j1.close();

}

void memory::L1()

{

f=0;

clrscr();

char a[40]="SUPERGIRL";

char b[40]="RIVERDALE";

char c[40],d[40];

cout<<"\n"<<a<<"\n"<<b;

delay(3000);

clrscr();

cout<<"\n\*\* ENTER WHAT YOU HAVE SEEN :- ";

cout<<"\n";

gets(c);

gets(d);

strupr(c);

strupr(d);

if((strcmp(a,c)==0)&&(strcmp(b,d)==0))

{

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\n \*.\*.\* CONGRATULATIONS YOU HAVE GIVEN THE CORRECT ANSWER \*.\*.\* ";

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

f+=100;

cout<<"\n\*..\*..\* PRESS ANY KEY TO CONTINUE \*..\*..\* ";

getch();

clrscr();

mm.L2();

}

else

{

cout<<"\n\*\* SORRY YOU HAVE GIVEN THE WRONG ANSWER \*\* ";

cout<<"\n\*\*. TRY AGAIN \*\*. ";

getch();

score();

}

}

void memory::L2()

{

clrscr();

char c[40],d[40];

char a[40]="SCARE PEWDIEPIE";

char b[40]="STRANGER THINGS";

cout<<a<<" "<<"\n"<<b;

delay(3000);

clrscr();

cout<<"\n\*\* ENTER WHAT YOU HAVE SEEN :- ";

cout<<"\n";

gets(c);

gets(d);

strupr(c);

strupr(d);

if((strcmp(a,c)==0) &&(strcmp(b,d)==0))

{

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\n \*.\*.\*CONGRATULATIONS YOU HAVE GIVEN THE CORRECT ANSWER\*.\*.\* ";

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

f+=100;

cout<<"\n"<<"\*..\*..\* PRESS ANY KEY TO CONTINUE \*..\*..\*";

getch();

clrscr();

mm.L3();

}

else

{

cout<<"\n\*\* SORRY YOU HAVE GIVEN THE WRONG ANSWER \*\*";

cout<<"\n"<<"\*\* TRY AGAIN \*\*";

getch();

score();

}

}

void memory::L3()

{

char c[40],d[40];

char a[]="ORANGE IS THE NEW BLACK";

char b[]="SABRINA THE TEENAGE WITCH";

cout<<a<<"\n"<<b;

delay(4000);

clrscr();

cout<<"\*\* ENTER WHAT YOU HAVE SEEN";

cout<<"\n";

gets(c);

gets(d);

strupr(c);

strupr(d);

if((strcmp(a,c)==0) &&(strcmp(b,d)==0))

{

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

cout<<"\n \*.\*.\* CONGRATULATIONS YOU HAVE GIVEN THE CORRECT ANSWER:- \*.\*.\* ";

cout<<"\n\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*.\*";

getch();

f+=100;

score();

cout<<"\n"<<"\*..\*..\* PRESS ANY KEY TO CONTINUE \*..\*..\*";

getch();

clrscr();

}

else

{

cout<<"\n\*\* SORRY YOU HAVE GIVEN THE WRONG ANSWER \*\*";

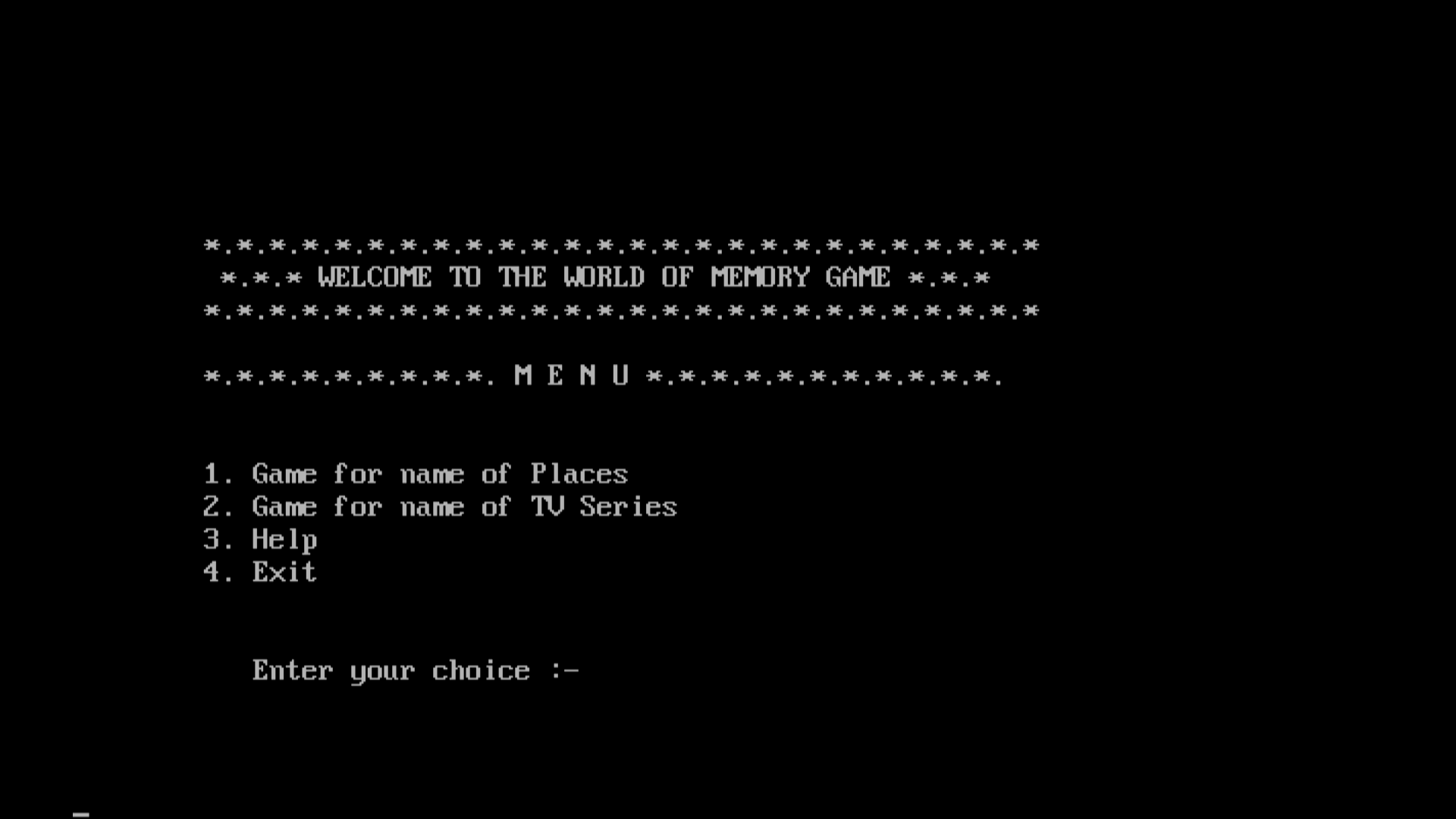
cout<<'\n'<<"\*\* TRY AGAIN \*\*";

score();

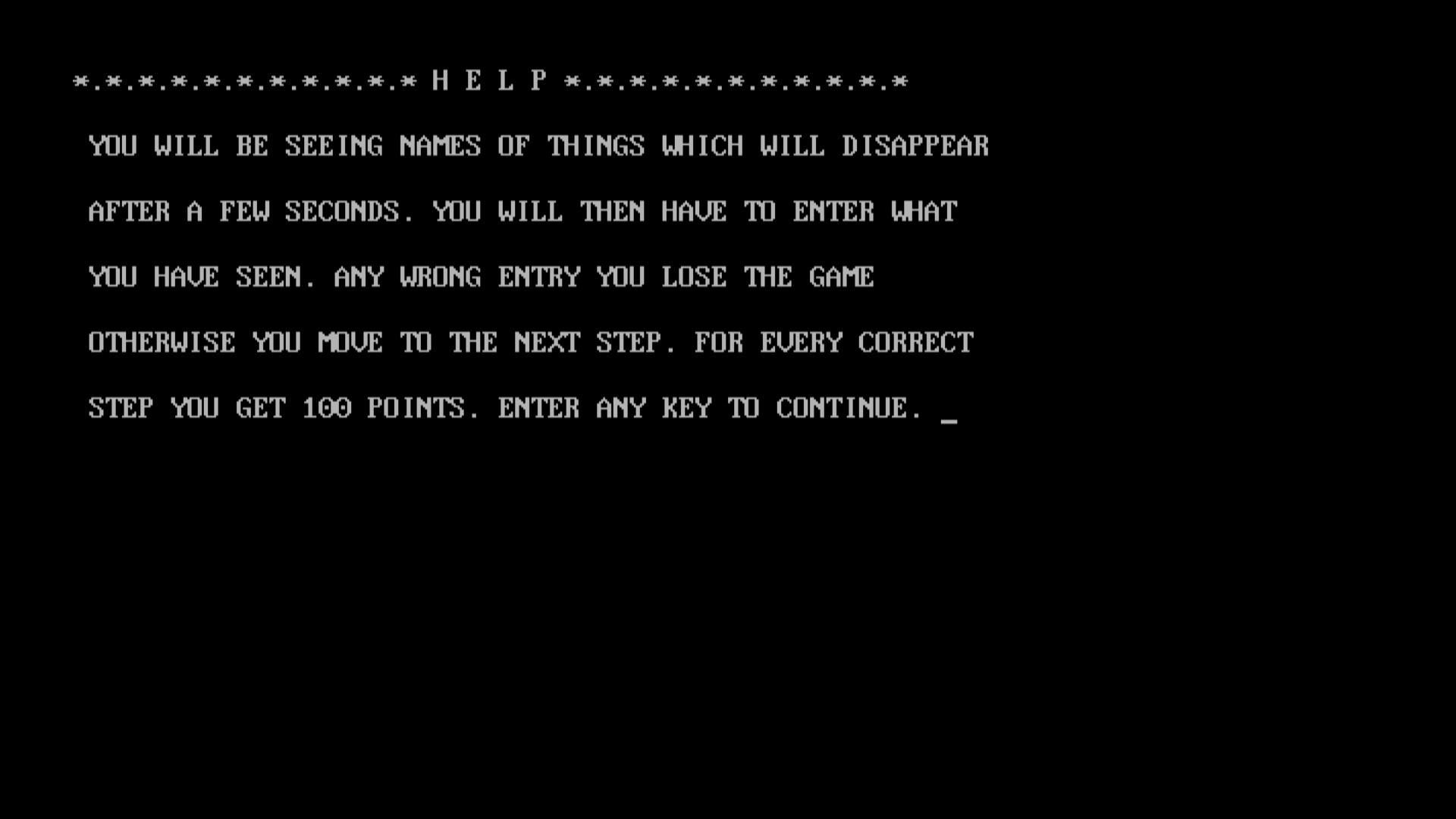
getch(); } }

**SCREENSHOTS**

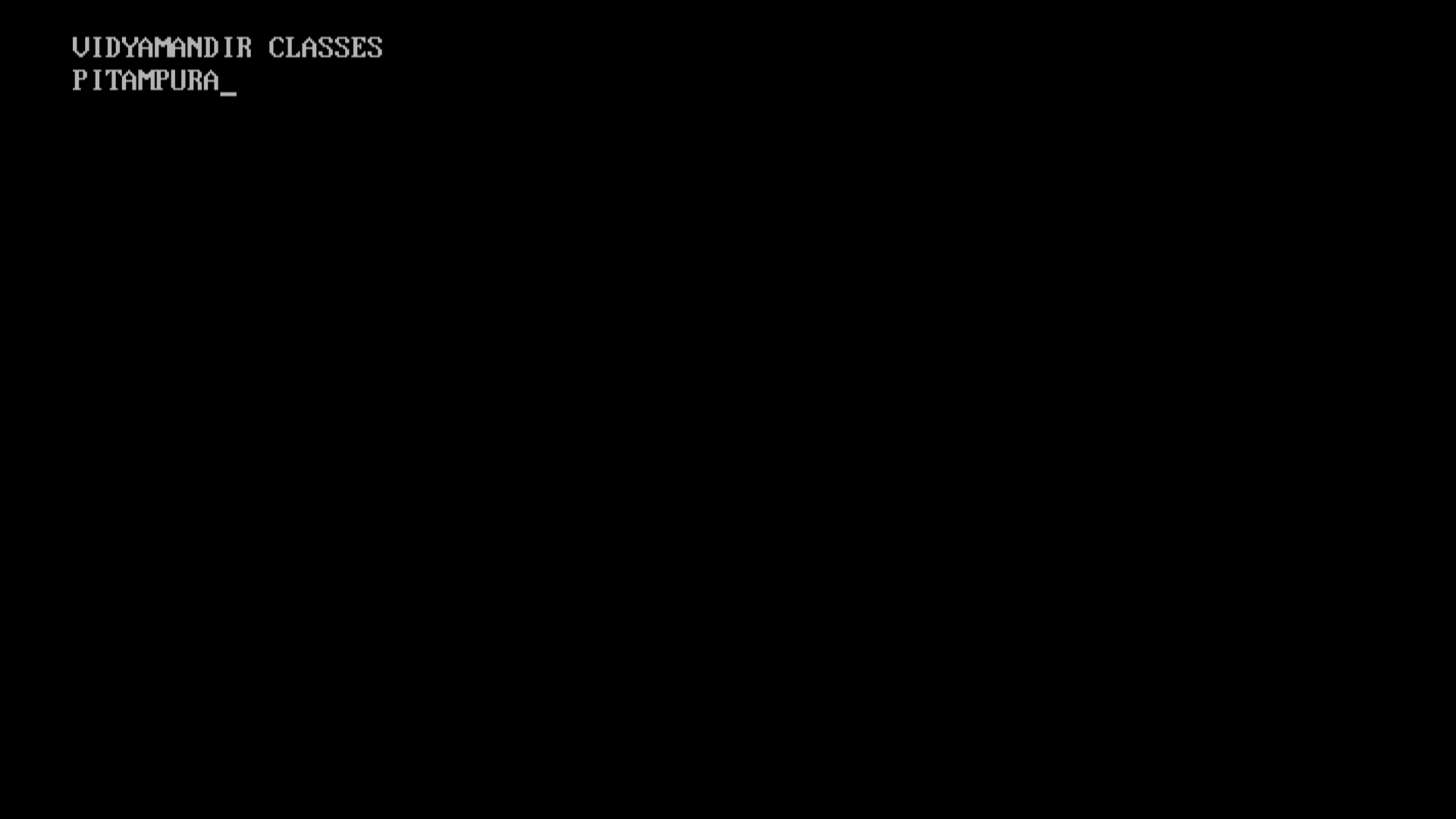
1. WELCOME SCREEN



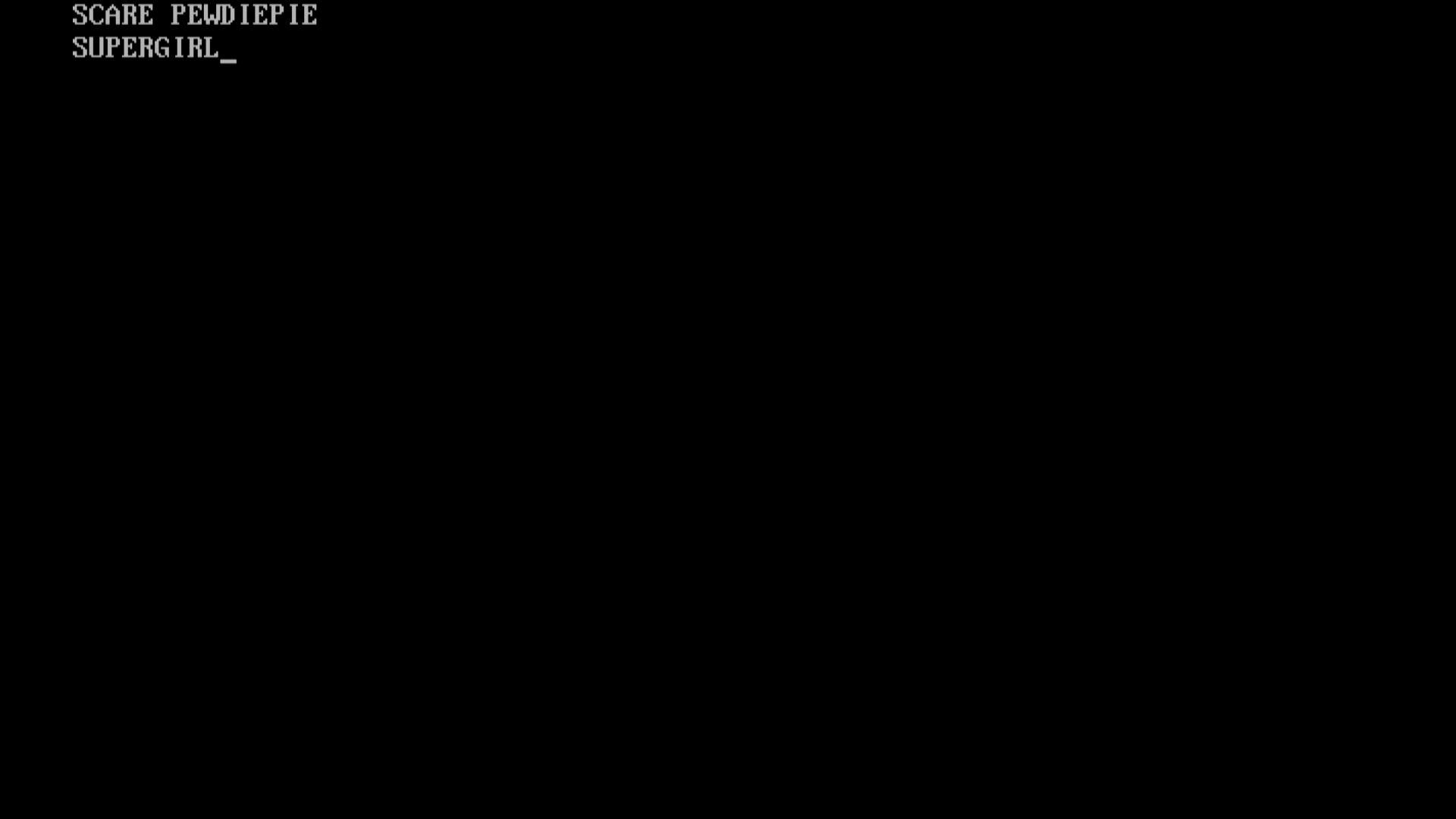
1. HELP



3. GAME OF PLACES



4. GAME OF TV SHOWS



5. CORRECT ENTRY



6. INCORRECT ENTRY

****

7. POINTS COUNT



**BIBLIOGRAPHY**

* **Computer Science with C++ by Sumita Arora**
* [**www.geeksforgeeks.org**](http://www.geeksforgeeks.org)
* [**www.cplusplus.com**](http://www.cplusplus.com)
* **Stanford Online**
* **Coding Blocks**
* **Object Oriented Programming by Robert Lafore**