CIS170 Review

1. What do the following statements accomplish?

ifstream myFile;

myFile.open( "thisFile.txt" , ios::in);

Ans: Opens thisFile.txt in read mode

1. Assuming that arr is an array and arrPtr is a pointer to that array, how do you refer to the address of element 4 of the array?

Ans: &arr[4]

1. When a function does not return a value, it is called a \_\_\_\_\_ function.

Ans: void

1. What is wrong with this call statement?

DispName(string name);

Ans: the data type should be removed

1. In this prototype, what is missing?

void PrintValue(int )

Ans: the semicolon

1. How does the environment handle a breakpoint when the debugger is running a program?

Ans: Stops the program at the line that has the breakpoint, but does not execute it

1. How many times will this for loop execute?

for (int i = 50; I > 0; --i)

Ans: the loop is not written correctly. It will not compile since C++ is case sensitive. The I should be i

1. Consider the following segment of code.

if(apple == Orange)

cout<<"You got Oranges!"<<endl;

else

cout<<"You got Apples";

cout<<"The end of the program is reached.";

What error can you identify?

Ans: no error

1. What is the value of x after the following statement?

float x;

x = 2 \* 5 + (3 + 1)/ 5.0 ;

Ans: 10.8

1. In your own words, define a function and code an example of creating a function and calling it.

Ans:

A function groups statements together to perform a task. Using a function, you can write code once and then reuse it in other situations. For example, if you need to find the lowest number of two numbers, you could create a function like the following:

int smallest (int num1, int num2)

{

int result;

if (num1 > num2)

return num2;

else

return num1;

}

Call the function using the following code:

cout<<smallest(2,3);

I

1. Create a code segment that defines a class definition for a monster. Include at least two properties and two methods.

Ans:

class Monster {

public:

Monster();

int fight(int);

void move();

private:

string name;

int hitPoints;

};

12. Using a loop, write a program that reads in and sums the squares of positive integers until a value that is -1 is read in.

Ans:

#include <iostream>

using namespace std;

int main()

{

int x = 1, sum = 0;

cout << "Enter positive integers (-1 to stop)" << endl;

cin >> x;

while ( x > -1 )

{

sum = sum + x\*x;

cout << "Enter positive integers (-1 to stop)" << endl;

cin >> x;

}

cout << "sum: " << sum << endl;

cin.ignore(2);

return 0;

}

1. Explain how a linear search is conducted to find a particular data value in an array. Provide a C++ program segment to illustrate your answer.

Ans:

In a linear search, you search through an array starting with the first element and checking each subsequent element until you find the value you are looking for.

#include <iostream>

using namespace std;

int main (void) {

int theArray[5] = {1,2,3,4,5};

int val = 4;

for (int i=0;i<5;i++)

{

if(theArray[i]==val)

{

cout<<"The value was found at index "<<i<<endl;

break;

}

}

cin.ignore(2);

return 0;

}

1. Provide a C++ code segment that reads data from a text file using a while loop.

Ans:

#include <string>

#include <fstream>

using namespace std;

int main () {

string line;

ifstream inMyStream;

inMyStream.open("File1.txt");

while (!inMyStream.eof() ){

//read one line from the file

getline (inMyStream, line);

//output the line read to the console

cout<<"line is "<<line<<endl;

}

//close the file stream object

inMyStream.close();

cin.ignore(2);

return 0;

}