CH 09 QUIZ

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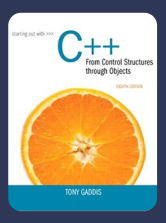

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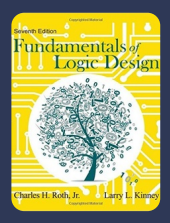

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Terms in this set (68)

A loop that reads data until some special value is found is called a:	sentinel loop
Which of these is not a technique for implementing a sentinel loop?	the counter-controlled pattern
What Java and other OO languages call a subclass, C++ calls a _____.	derived class
Stream arguments to a function should:	be as general as possible (istream and ostream)
Stream arguments to a function should always be passed:	by reference

The file temp.txt contains "Orange Coast College". What prints?
 	
ifstream in("temp.txt");
char c;
while (in.get(c))
{
if (isupper(c))
cout << toupper(c);
}
	OCC

Create an input file stream object named in.	ifstream in;
Which line opens the file in.txt for reading?	ifstream in("in.txt");
Which line opens the file input.txt for reading?	ifstream in("input.txt");
Create an input file stream object named in and open the text file "tuba.txt", using a single statement.	ifstream in("tuba.txt");
Create an output file stream object named out.	ofstream out;
Which line opens the file out.txt for writing?	ofstream out; out.open("out.txt");

Create an output file stream object named out and open the text file "expenses.dat", using a single statement.	ofstream out("expenses.dat");
Use the output stream object named out to create the text file on disk named "totals.txt".	out.open("totals.txt");
Establish an association between the input stream object named in, and the text file on disk named "pets.txt".	in.open("pets.txt");

Which line reads a single word from the istream named in into the string variable word?
 	
word = in.next();
in.get(word);
getline(in, word);
in << word;
None of these
	None of these

The file temp.txt contains "If I saw an Aardvark, I would scream!". What prints?
 	
ifstream in("temp.txt");
char c;
int i = 0;
while (in.get(c))
{
if (tolower(c) == 'a') i++;
}
cout << i << endl;
	6

The return value of the getline() function is an input stream object The return value of the getline() function is a string object.	True False
When writing a function with stream parameters, always use the most general type of stream that meets the specification When writing a function with stream parameters, always use the most specific type of stream that meets the specification	True False
The cout object is an instance of the ostream class. The cout object is an instance of the ofstream class	True False
A loop that reads data until the input stream signals that it is done is called a data loop A loop that reads data until the input stream signals that it is done is called a sentinel loop	True False
In the primed loop pattern, you read data before the loop and at the end of the loop. In the primed loop pattern, you use Boolean flag to signal when the sentinel is found In the primed loop pattern, you use a break statement to exit the loop when the sentinel is found	True False False

The getline() function is a non-member function in the string library	True
The getline() function is a member function in the string class	False
The getline() function is a member function in the istream class.	False
To use a disk file as a data stream source or sink, use the <fstream> header	True
To use a disk file as a data stream source or sink, use the <ifstream> header	False
To use a disk file as a data stream source or sink, use the <ofstream> header	False
Unformatted I/O means that you read and write data character-by-character	True
Unformatted I/O means that you read and write data line-by-line	False
Formatted I/O means that you read and write data token-by-token	True
Formatted I/O means that you read and write data line-by-line	False
The C++ term for what is called a superclass in other languages is base class	True
The C++ term for what is called a superclass in other languages is derived class	False
The cin object is an instance of the istream class	True
The cin object is an instance of the ifstream class	False
Stream parameters should always be passed to functions by reference	True
Stream parameters should always be passed to functions by const reference	False
In the flag-controlled-pattern, you use Boolean variable to signal when the sentinel is found	True
In the flag-controlled-pattern, you use a break statement to exit the loop when the sentinel is found.	False
In the flag-controlled-pattern, you read data before the loop and at the end of the loop	False
In the loop-and-a-half, you use a break statement to exit the loop when the sentinel is found	True
In the loop-and-a-half, you use Boolean variable to signal when the sentinel is found	False
In the loop-and-a-half pattern, you read data before the loop and at the end of the loop.	False

If an input stream's file is missing when you try to open it, its fail() member function returns true	True
If an input stream's file is missing when you try to open it, its fail() member function returns false	False
If an output stream's file is missing when you try to open it, its fail() member function returns false.	True
To use strings as a data stream source or sink, use the <sstream> header	True
To use strings as a data stream source or sink, use the <stringstream> header	False
The C++ term for what is called a subclass in other languages is derived class	True
The C++ term for what is called a subclass in other languages is base class	False
A loop that reads data until some special value is found is called a sentinel loop.	True
A loop that reads data until some special value is found is called a data loop.	False
To read a line of text, you include the header file <string>	True
A token is a "chunk of meaningful data".	True
In the C++ stream hierarchy, the base class of the ifstream class is:	istream
In the C++ stream hierarchy, the base class of the ofstream class is:	ostream
In the C++ stream hierarchy, the base class of the ostream class is:	ios
In the C++ stream hierarchy, base class of the istream class is:	ios
In the C++ stream hierarchy, the base class of the stringstream class is:	iostream
In the C++ stream hierarchy, the base class of the fstream class is:	iostream

Read and write characters to memory using streams	sstream
Connect a disk file to an input or output stream	fstream
Use the predefined stream objects cin and cout	iostream
Determine the category of a character	cctype
Modify the way that memory is converted to characters on input or output	iomanip

Which fragment completes this code segment?
 	
string fmt(double n, int decimals)
{
ostringstream out;
out << fixed << setprecision(decimals);
out << n;
return _____;
}
	out.str()

After writing data to an ostringstream object named os, you can retrieve the string it contains by using:	os.str()

What does this code do?
 	
ifstream in("temp.txt");
char x;
int i{0};
while (in.get(x)) i++;
cout << i << endl;
	Counts the number of characters in the file

What does this code do?
 	
ifstream in("temp.txt");
string x;
int i{0};
while (getline(in, x)) i++;
cout << i << endl;
	Counts the number of lines in the file

What does this code do?
 	
ifstream in("temp.txt");
string x;
int i{0};
while (in >> x) i++;
cout << i << endl;
	Counts the number of words in the file

Which of the following loop patterns are used here?
 	
size_t pos = 0;
char ch;
in.get(ch);
while (ch != 'Q')
{
pos++;
in.get(ch);
}
	primed loop
	sentinel loop

Which of the following loop patterns are used here?
 	
int upper = 0;
char ch;
while (in.get(ch))
{
if (ch >= 'A' && ch <= 'Z')
upper++;
}
	inline test
	data loop

Which of the following loop patterns are used here?
 	
int n;
in >> n;
while (abs(n))
{
out << n % 4 << endl;
n /= 4;
}
	limit loop

Which of the following loop patterns are used here?
 	
auto len = str.size();
while (len) out << str.at(--len);
	counter-controlled loop

Which of the following loop patterns are used here?
 	
string s{"hello CS 150"};
for (auto e : s)
{
if (toupper(e))
out.put('x');
}
	iterator or range loop

Which of the following loop patterns are used here?
 	
string s{"hello CS 150"};
for (auto e : s)
{
if (toupper(e)) break;
}
	iterator or range loop
	
	loop-and-a-half

Which of the following loop patterns are used here?
 	
string s{"Hello CS 150"};
while (s.size())
{
if (s.at(0) == 'C') break;
s = s.substr(1);
}
cout << s << endl;
	counter-controlled loop
	
	loop-and-a-half
	
	sentinel loop

After opening the input stream in, which of these cannot be used to see if the file was successfully opened?	if (in.opened()) {/ **opened ok** /}

This loop:
 	
char c;
while (in.get(c))
{
cout << c << endl;
}
	illustrates raw character I/O

This loop:
 	
char c;
while (c = in.get())
{
cout << c << endl;
}
	illustrates line-based stream processing

This loop:
 	
string str;
while (getline(in, str))
{
cout << str << endl;
}
	illustrates line-based stream processing

This loop:
 	
string str;
while (in >> str)
{
cout << str << endl;
}
	illustrates token-based stream processing

The file grades.txt contains lines of text that look like this: Smith 94 Jones 75 . . . Each line of text contains the student's name (a single word) and an integer score. What is the legal way of reading one student's information, given the following code? string name; int score; ifstream in("grades.txt");	in >> name >> score;

The file expenses.txt contains the line: Hotel, 3 nights. $ 1,750.25. What prints?
 	
ifstream in("expenses.txt");
char c;
while (in.get(c))
{
if (isdigit(c)) {
in.unget();
double n;
in >> n;
cout << n << 'x';
}
}
	3x1x750.25x

The file expenses.txt contains the line: Hotel, 3 nights. $ 1,750.25. What prints?
 	
ifstream in("expenses.txt");
char c;
while (in.get(c))
{
if (isdigit(c)) {
in.unget();
int n;
in >> n;
cout << n << 'x';
}
}
	3x1x750x25x

Assume that the file scores.txt does not exist. What happens? ofstream out("scores.txt"); out << "Peter" << " " << 20 << endl; out << "John" << " " << 50 << endl;	Creates a new file, scores.txt and writes two lines of text.

Which line represents the necessary bounds in this loop? 1. string s("Hello CS 150"); 2. while (s.size()) 3. { 4. if (s.at(0) == 'C') break; 5. s = s.substr(1); 6. } 7. cout << s << endl;	2
Which line represents the intentional bounds in this loop? 1. string s("Hello CS 150"); 2. while (s.size()) 3. { 4. if (s.at(0) == 'C') break; 5. s = s.substr(1); 6. } 7. cout << s << endl;	4
Which line advances the loop? 1. string s("Hello CS 150"); 2. while (s.size()) 3. { 4. if (s.at(0) == 'C') break; 5. s = s.substr(1); 6. } 7. cout << s << endl;	5