CSCE 121 Slide Set 3

What are the types of errors? Describe both. What is debugging?

Slide 2, 3

What are 2 methods for handling runtime errors? What is an exception and what are the 3 things involved with handling them? Describe the 3 things.

Slide 5,6,7,8,9,10,11,12,13

Why would you have multiple catch blocks? What variables can we throw as exceptions? Why would we throw multiple exceptions or exception types? How would you throw and catch a runtime error?

Slide 15,16,17,18

Describe the breakdown of datatypes.

Slide 22

What is an array/vector? What is the difference between a vector and an array?

Slide 23

What is an array really? What is an arrays variable name? What must you know about an array at compile time? What is the issue with arrays and why is it a problem?

Slide 24

What is a vector? Why is it preferred over arrays? What are 3 ways to shape a vector when it is created? Is an array or vector easier to read?

Slide 25,26,27

What are parallel vectors? What is a better method to handling heterogeneous data types? What is a multidimensional vector? What are the 2 ways to accessing a multidimensional vector and which is the safest method?

Slide 28,29

How does a linear search work? How would a program signal that the search term wasn’t found during the linear search? In what cases is a linear search useful?

Slide 33,34

What are the conditions for a binary search? Why is it better than a linear search? What are some drawbacks of a binary search? How does a binary search work? What is a good way to think of a binary search? Describe the process of a binary search. What is returned if the search term wasn’t found? Memorize the flow chart of a binary search.

Slide 35,36,37,38

How do we sort a vector (using built in functions)? How much faster is a binary search than a linear search?

Slide 39,40

What is a selection sort and how does it work? How many vectors are needed for selection sort?

Slide 43-63

What are ways to improve the selection sort listed above? What method is used if only one vector is used to sort? Describe a selection sort that only uses one vector. With this method, do we insert at the last location index?

Slide 64,65-82

Describe the process for input and output for a program. Describe the Stream Model for ostream. What is an ostream and what does it do?

Slide 85,86

Describe the Stream model for ifstream. What is ifstream and what does it do?

Slide 87

What is the Stream model and what does it support? What is it typically stored as? What would it be called if it didn’t store text? What can a stream be attached to?

Slide 88

How is cin/cout related to file streams?

Slide 89