Study Guide 4

What do the stack and heap do in relation to another as they grow in size? What do we do if we want objects to not be destroyed when we are done with them?

Slide 3,4

How do you put data on the heap? What are the keywords related to the heap? How do you remove data from the heap? What could happen if you forget to remove data from the heap?

Slide 5,6

What happens if you try to delete memory that has already been cleared? What about deleting a pointer set to nullptr? What if you try to dereference a pointer that has already been deleted?

Slide 7

What is RAII? What special operator is used to dereference pointers? What is another similar method to the special operator?

Slide 8,9

Do the memory diagram for the code on slide 13.

Slide13-20

What is a memory leak? What is garbage collection? What are the 3 specific scenarios that can result in a memory leak?

Slide 23

What are the 4 strategies to manage dynamic memory and what do they consist of? Which one of these is rarely used and why? What must classes that use dynamic memory do? What is the rule of three? What is the rule of five?

Slide 24,25

Do the memory diagram for slide 28 and understand how memory leaks are formed.

Slide 28-32