Study Guide 2

What is another data type similar to a class? What is the focus in OOP?

Slide 3,4

Why do we use OOP? What are the 2 ways to group classes? How do objects communicate?

Slide 5

What is a class similar to? What is an object and what is a way to think of them as (in regards to blueprints)? What is the difference between private and public and when do we use them? What is used with public and what is used with private and how do the two interface with each other?

Slide 6,7,8

What is interchangeable with a class? What was this used for in what language? When did the class get adopted? What could classes do that structs could not (but they can now)? Now how do classes and structs differ?

Slide 9

Are objects language agnostic? Instead of focusing on how, what do we focus on? What are some ways to model objects in terms of real world objects?

Slide 11,12

What is UML and what does it stand for? What are the 5 things UML diagrams get used in? What are the 3 parts of a UML diagram? How do you format methods in a UML diagram? What does a ‘+’ or ‘-‘ mean in a UML diagram?

Slide 13,14,15,16,17

What are the 3 ways to show relationships between classes in a UML diagram? What are they called and what do they look like? Memorize the example on slide 19.

Slide 18,19

What are the parts of class? What is an object? What do private and public mean? What does ‘this’ indicate?

Slide 21,22,29

How should we name header files and the .cpp files that are associated with them? What goes in the header file and what goes into the .cpp file?

Slide 36,37

What is a constructor and what does it do? What is RAII? How do you write a constructor? What are the 2 ways to initialize variables in constructors? Which is the preferred method and why? Can the constructor definition be moved outside of the class definition?

Slide 39,40,41,44

How do you overload constructors? What is the difference between a constructor and a default constructor?

Slide 45,46

What happens if there is no constructor defined? What happens if a constructor is defined but a default one is not? Is it better to just create our own default constructor rather than let the compiler do it?

Slide 48

Do the memory diagram for slides 55 and 56.

Slide 55-63

When should an attribute be public? When should it be private? When should a method be public? When should a method be private? How do we make private attributes “public”? What should we do if an attribute is truly private? What if we still need to manipulate it?

Slide 65,66

What is the best thing to do if there is data in the code that only needs to be set once? What is an implied attribute and what is an example of this?

Slide 67,68