

Week 1 Notes

Fill in your answers based on the Week 1 material and submit to MarkUs by Monday 21 September 2020 for participation marks.

+ Intro to the Course

1. What are three things I can do to make sure that I am not accused of cheating in this course?

- Don't share answers
- Rephrase answers found online or in lectures
- When helping others, explain concepts rather than giving answers

2. How can I ask questions? (List at least three ways)

- In lecture chat with the prof
- On Piazza
- With friends/study groups

3. How can I attend/view lectures?

You are allowed to attend any of the Tuesday lectures regardless of your enrolment. The recordings of each lecture can be found after class, if you go to q.utoronto.ca → CSC207H1F → Bb Collaborate → "Recordings" in the app menu.

4. What am I expected to do each week?

Attend/watch lectures and doing weekly exercises

+ Intro to Design

5. What does efficiency mean when we're talking about Object Oriented Design?

Human efficiency, minimize the amount of work you need to do to complete a task

6. Give preliminary definitions for "Object Oriented Design", "Efficient Design", "Abstraction", "Encapsulation", "Inheritance", "Polymorphism", "Coupling", and "Cohesion".

Object Oriented Design: Designing a program off a principle that involves "objects" interacting with each other

Efficient Design: The idea of designing a program that is easy to update, maintain, and extend, ie human efficiency

Abstraction: Generalizing a concept into its essential characteristics and methods (actions)

Encapsulation: The hiding of raw code and only displaying the functionality to things outside the class

Inheritance: The ability of classes to inherit characteristics and methods from other classes

Polymorphism: The ability for an object to refer to objects of a different type

Coupling: How much a class is dependant on another

Cohesion: How much the purpose of classes package together to operate a larger task

7. "Low coupling and high cohesion" means:

The classes do not affect or change each other much, but have lots of similar tasks that band together to operate a larger task

+ Intro to Java

8. What is a "constructor", a "class variable", and a "method"?

constructor: essentially the "init" method of classes in python, initiate the object and it's characteristics (class variables)

class variable: variables specific to each instance of a class, bundled inside each object

method: a "action", more specifically a function of a class, these belong to the class, not the objects themselves

9. Give two differences between primitive and reference variables.

Reference variables store the address of the actual value while primitive variables store the actual value

Using the comparison operator (==) reference compares the address while primitive compares the actual data

10. Which package is the String class in? You can find this information on the Oracle website when you search “String java”.

java.lang