

CISC 3115

# The final Modifier

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# Outline

- Discussed in this module
  - Inheritance
    - Superclass/supertype, subclass/subtype
  - Inheritance and constructors in Java; Inheritance and instance methods in Java
  - The Object class in Java
  - Concept of Polymorphism; Polymorphism via inheritance; Dynamic binding
  - Type casting in a type hierarchy; instanceof
  - Public, (no modifier)/default, protected, and private visibility modifier.
- The final modifier
  - Why do we need it?
  - How do we design programs with it?

# The final Modifier

- Q1. where can you use the final modifier?
- Q2. why do we need it?

# Applying the final Modifier

- Applying the final modifier to a variable
  - The value of the variable cannot be changed, i.e., the variable is intended to be a constant
- Applying the final modifier to a method
  - The implementation of the method cannot be changed, i.e., the method cannot be overridden by the class's subclasses.
- Applying the final modifier to a class
  - The class hierarchy cannot grow downward from the class, i.e., the class cannot be extended.

# Examples

- Let's make Java compiler complain.

# Questions?

- The final modifier
- Where can we use it?
  - To variable
  - To method
  - To class
- Meaning?