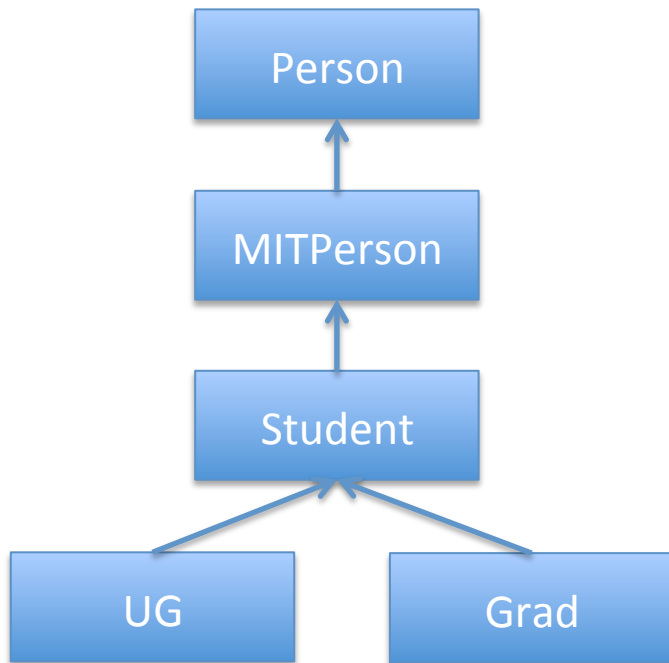


Using Inheritance

- Let's build an application that organizes info about people!
 - Person: name, birthday
 - Get last name
 - Sort by last name
 - Get age
 - MITPerson: Person + ID number
 - Assign id numbers in sequence
 - Get id number
 - Sort by ID number
 - Students: several types, all MITPerson
 - Undergraduate student: has class year
 - Graduate student

Class Hierarchy & Substitution Principle



Subclass → Superclass

- Here's a diagram showing our class hierarchy
- Be careful when overriding methods in a subclass!
 - **Substitution principle:** important behaviors of superclass should be supported by all subclasses