CSYE 6200

Concepts of Object-Oriented Design

Inheritance
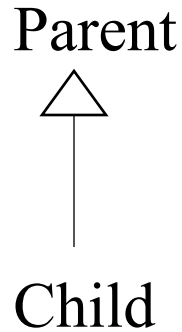
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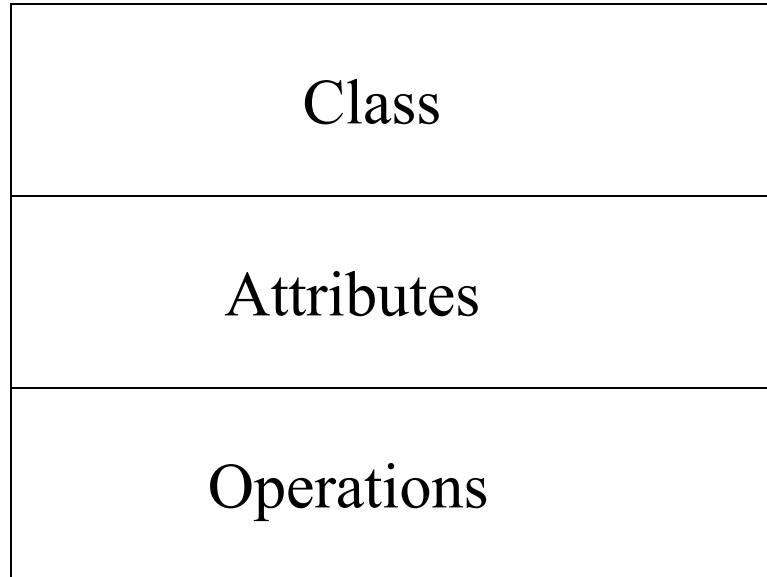
- Lecture
  1. Inheritance
  2. Java Concrete Class
  3. Java Abstract Class
  4. Java Interface

Relationships

- Generalization: Inheritance Is-A Relationship
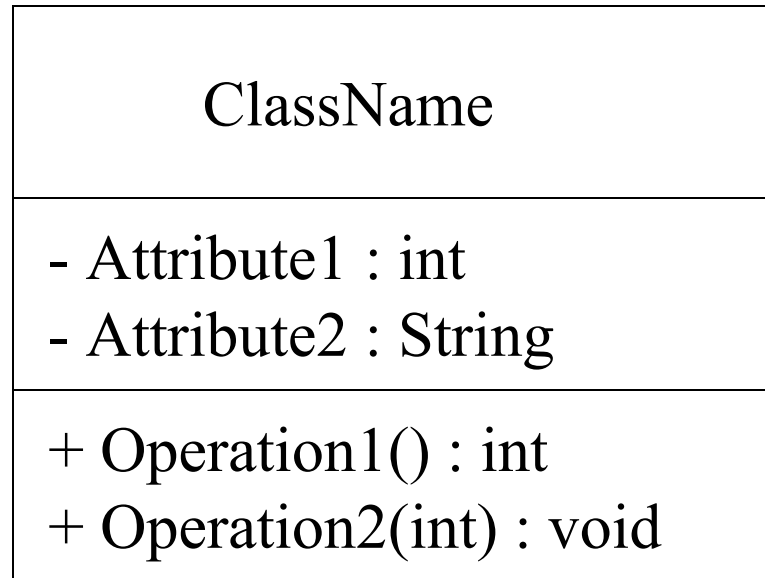 - Child Is-A Parent

Parent
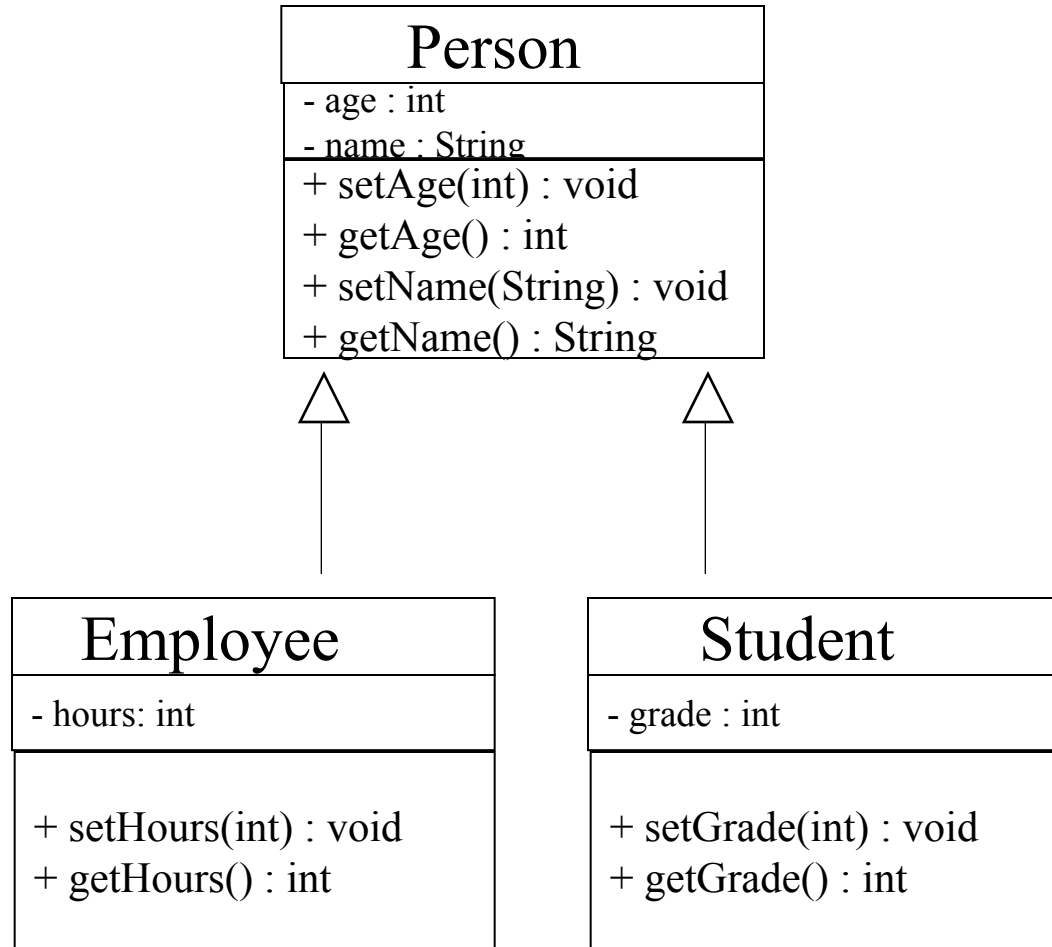
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Child

UML Class Diagram

Class
Attributes
Operations

UML Class Diagram

- private
+ public

ClassName
- Attribute1 : int - Attribute2 : String
+ Operation1() : int + Operation2(int) : void

Person Class Diagram

Person

- age : int
- name : String

+ setAge(int) : void
+ getAge() : int
+ setName(String) : void
+ getName() : String

Employee

- hours: int

+ setHours(int) : void
+ getHours() : int

Student

- grade : int

+ setGrade(int) : void
+ getGrade() : int

Inheritance Class Diagram

Parent
+ speak() : void

Child
+ demo() : void
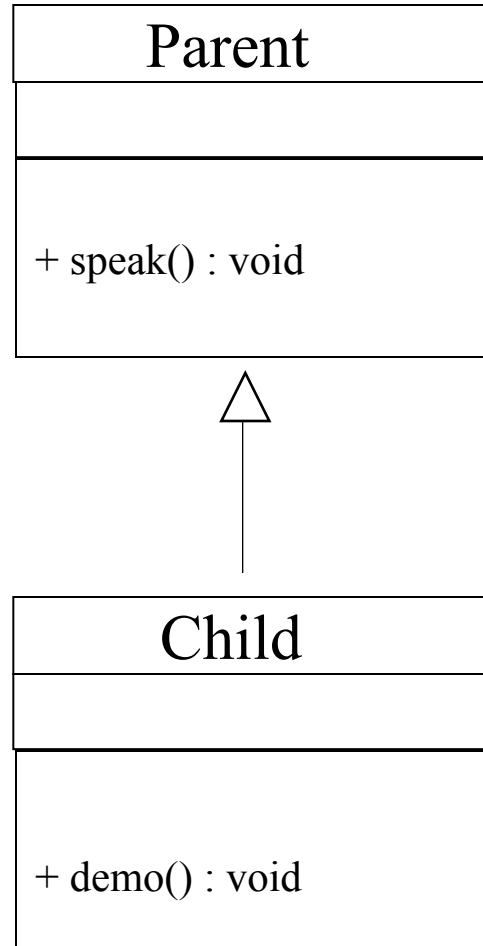
Class

- Class
  - class MyName [extends MySuperClass] [implements MyInterface1, MyInterface2] {
    - Data
    - Constructor
    - Method
    - }

Concrete Class

- Class
  - Concrete
    - Declared: public, private or protected members
    - Fully implemented methods
    - Data
      - final or non final
      - static or non-static
    - Can be instantiated to create objects

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