# CSI 32 LECTURE NOTES (Ojakian)

## Topic 6: Inheritance

#### **OUTLINE**

(References: ch. 9.1, 9.2, 9.3)

- 1. Inheritance
- 2. Multiple Inheritance

#### 1. Basics

(a) Creating Child Class

Example: Person and Student

(b) Augmenting Methods

Example: GPA, etc.

(c) Specializing Methods

Example: Social Security Number

(d)

PROBLEM 1. Do Practice 9.2 (p. 327). \*PROBLEM\* 2. Do Practice 9.1 (p. 327).

## 2. Example: SortedSet

- (a) Using Inheritance (section 9.2)
- (b) And not ... (section 9.3)
- (c) is-a relationship versus has-a relationship

### 3. Multiple Inheritance

- (a) Example: Student as child of Person and Thing
  - i. Person: Represents human aspects of persons
  - ii. Thing: Represents objects as physical objects
  - iii. Student: Want to view as both human and physical object.
- (b) Avoid conflicts!