

North South University
Department of Electrical and Computer Engineering
CSE 215L: Programming Language II Lab

Lab – 10: Inheritance & Polymorphism

Objective:

- To understand inheritance
- To understand polymorphism

<table><tr><th>Plant</th></tr><tr><td>- name: String</td></tr><tr><td>- color: String</td></tr><tr><td>/* constructor */</td></tr><tr><td>/* accessor-mutator */</td></tr><tr><td>/* toString */</td></tr></table>	Plant	- name: String	- color: String	/* constructor */	/* accessor-mutator */	/* toString */	<table><tr><th>Flower extends Plant</th></tr><tr><td>- hasSmell: boolean</td></tr><tr><td>- hasThorn: boolean</td></tr><tr><td>/* constructor */</td></tr><tr><td>/* accessor-mutator */</td></tr><tr><td>/* toString */</td></tr></table>	Flower extends Plant	- hasSmell: boolean	- hasThorn: boolean	/* constructor */	/* accessor-mutator */	/* toString */
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<table><tr><th>Herb extends Plant</th></tr><tr><td>- isMedicinal: boolean</td></tr><tr><td>- season: String</td></tr><tr><td>/* constructor */</td></tr><tr><td>/* accessor-mutator */</td></tr><tr><td>/* toString */</td></tr></table>	Herb extends Plant	- isMedicinal: boolean	- season: String	/* constructor */	/* accessor-mutator */	/* toString */							
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In main method, create an array of Plant objects and implement these methods:

static void add(Plant [] plants, Plant p) // to add new plant object into the array

static void remove(Plant [] plants, String n) // remove a plant given its name

static Plant search(Plant [] plants, String n) // search for a plant given its name

static void display(Plant [] plants) // display all Plant objects