

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

Lab – 12: Abstract Class & Interface

Objective:

- To understand abstract class
- To understand interface

Task:

1. Implement the following classes and invoke area(), perimeter() for object of Triangle:

<table><tr><td><i>Polygon</i></td></tr><tr><td>- numSide: int</td></tr><tr><td> /* constructor */ /* accessor-mutator */ + area(): double + perimeter(): double</td></tr></table>	<i>Polygon</i>	- numSide: int	 /* constructor */ /* accessor-mutator */ + area(): double + perimeter(): double	<table><tr><td>Triangle extends Polygon</td></tr><tr><td>- sideA: double - sideB: double - sideC: double</td></tr><tr><td> /* constructor */ /* accessor-mutator */ + area(): double + perimeter(): double</td></tr></table>	Triangle extends Polygon	- sideA: double - sideB: double - sideC: double	 /* constructor */ /* accessor-mutator */ + area(): double + perimeter(): double
<i>Polygon</i>							
- numSide: int							
 /* constructor */ /* accessor-mutator */ + area(): double + perimeter(): double							
Triangle extends Polygon							
- sideA: double - sideB: double - sideC: double							
 /* constructor */ /* accessor-mutator */ + area(): double + perimeter(): double							

2. Implement the following class and invoke discountedPrice():

<div><div><<interface>> Discountable</div><div>discountedPrice(price: double): double</div></div>	<div><div>BestForCustomer</div><div><ul style="list-style-type: none">- percentage: double- threshold: double- discount: double</div><div>/* constructor, accessor, mutator */ + discountedPrice(price: double): double</div></div>
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discountedPrice() from BestForCustomer class will consider both percentage and threshold discount and give the customer the best possible sales price.