North South University

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

Lab – 11: Abstract Class & Interface

Objective:

- To understand abstract class
- To understand interface

Task:

1. Implement the following classes:

Shape	
- name: String	
+ Shape(name: String) /* accessor-mutator */	
+ area(): double + perimeter(): double	

Rectangle extends Shape

- length: double
- width: double
- + Rectangle(name: String, length: double, width: double)
- /* accessor-mutator */
- + area(): double
- + perimeter(): double

2. Implement the following classes and invoke discountedPrice() for object of each class.

<<interface>>
Discountable

discountedPrice(price: double): double

PercentageDiscount

percentage: double

+ PercentageDiscount(percentage: double)
+ getPercentage(): double
+ setPercentage(percentage: double): void
+ discountedPrice(price: double): double

ThresholdDiscount

- threshold: double
- discount: double
- + ThresholdDiscount(threshold: double, discount: double)
- + getThreshold(): double
- + getDiscount(): double
- + setThreshold(threshold: double): void
- + setDiscount(discount: double): void
- + discountedPrice(price: double): double