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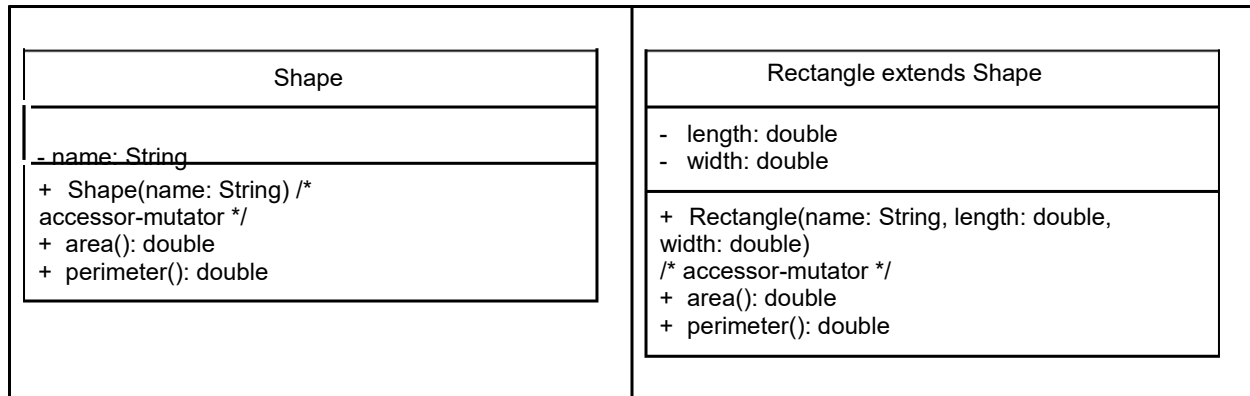## CSE 215L: Programming Language II Lab

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