**ICS 108 – Object-Oriented Programming**

**Lab # 9 – Inheritance**

**Objectives:**

In this lab, the following topic will be covered:

1. Inheritance

**Task**

Design a class Person that has two subclasses Student and Employee.

A person has a name and a phone number.

A student has an id and GPA.

An employee has an id and monthly salary.

Note: All instance variables must be declared as private.

Include in each class a constructor that has all the data fields.

In each class override the toString( ) method to return the data fields.

For the Person class include getter and setter for phone number and a getter for name.

For the Student class include getter and setter for GPA.

For the Employee class include getter and setter for monthly salary.

Note: For the setters assume that the parameters are valid.

Write a test program that creates three objects: a Person object referenced by person, a Student object referenced by student, and an Employee object referenced by employee. Display the details of each object using its toString( ) method.

Here is a sample run of the program:

Name: Salem, Phone number: 0501331845

Name: Reem, Phone number: 0564448202, ID: 200000, GPA: 3.6

Name: Saad, Phone number: 0563428255, ID: 200003, Monthly salary: 16000 SAR