Exercise 1: Given this UML diagram of a system, complete the diagram by determining the necessary attributes and methods. Then, implement all classes using Java. Write another program to test your code.

**Company** class has the following attributes: Name, Address, phone, fax. It has the following methods
- double GetTotalSalary() // returns the total salary of all employees and managers
- Normal constructor, Setters and Getters

**Managers Class (assume max of 100 managers)**
Attributes:
- Manager[] managers
- Int numManagers //number of the managers
Methods:
- Add (Manager newMgr) //adds new manager
- Manager Search (string MgrName) // searches for a manager given his name
- ReadManagers () // reads the managers information from the user
**Employees Class (assume max of 100 employee)**
Attributes:
- Employee[] employees
- Int numEmployees //number of the employees
Methods:
- Add (Employee newEmp) //adds new employee
- Employee Search (string EmpName) // searches for a employee given his name
- ReadEmployees() //read the employees from the user

**Manager Class**
Attributes:
- String Name
- String address
- String phone
- String office
- Double Salary
- Employee [] mgrEmployees
Methods:
- Constructor, Setters and Getters
- Void AssignEmployee( Employee emp)
- Bool isManaged (string empName) //returns true if the employee is managed by
  // this manager

**Employee Class**
Attributes:
- String Name
- String address
- String phone
- String office
- Double Salary
Methods:
- Constructor, Setters and Getters

**Department Class**
Attributes:
- String Name
- String location
- Employee[] emps
- Int numEmployees //number of employees in the department (max 50)
Methods:
- Constructor, setters, and getters
- AssignEmployee (Employee emp)