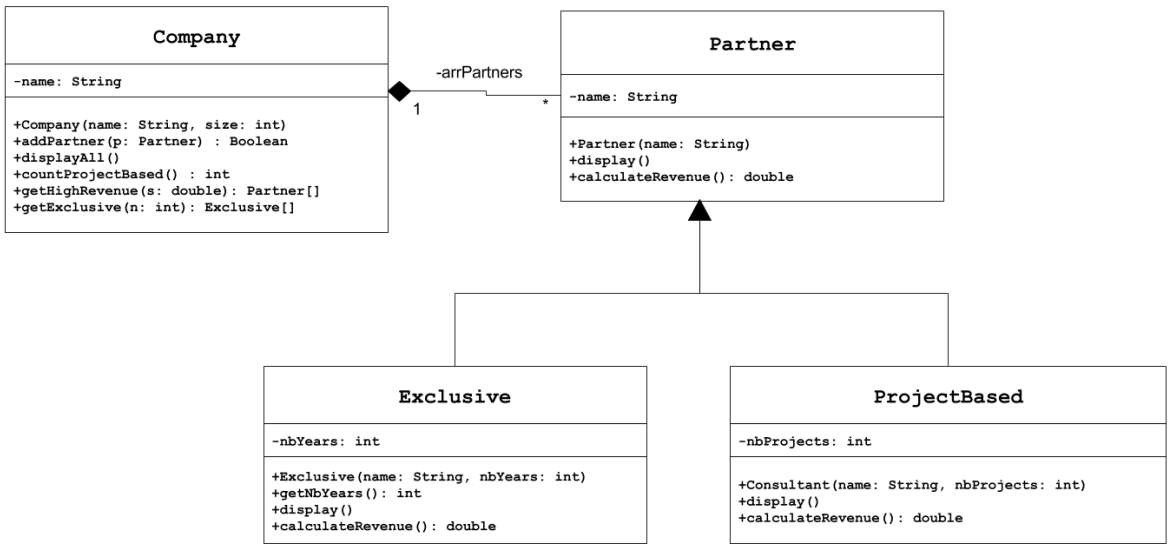
King Saud University
College of Computer and Information Sciences
Department of Computer Science
CSC113 – Computer Programming II – Polymorphism tutorial – Spring 2016



Partner class***:***

- Attributes:
  - ***name***: the name of the employee.
- Methods:
  - ***Partner (name: String)***: constructor
  - ***display()*:** this method display all the attributes of the Partner.
  - ***calculateRevenue()*:** this method calculates and return the Salary of the partner as the following:
    - ***Partner:*** 100,000
    - ***Exclusive:*** nbYears * 10,000 + 300,000
    - ***ProjectBased:*** nbProjects * 200,000

Exclusive class***:***

- Attributes:

- ***nbYears***: number of years of partnership.

- Methods:
  - ***Exclusive (name: String, nbYears: int)***: constructor
  - ***display()*:** this method display all the attributes.
  - ***getNbYears()*:** this method returns nbYears value.

ProjectBased class***:***

- Attributes:
  - ***nbProjects***: number of projects.
- Methods:
  - ***ProjectBased(name: String, , nbProjects: int)***: constructor
  - ***display()*:** this method display all the attributes.

Company class***:***

- Attributes:
  - ***name***: the name of the company.
- Methods:
  - ***Company (name: String, size: int)***: constructor
  - ***addEmployee(Employee e)*:** this method adds an employee to the company. An employee can be of type Employee, type Manager or type Consultant.
  - ***displayAll ()*:** Display all employees and their attributes along with their salary.
  - ***countProjectBased()*:** this method returns the number of all ProjectBased Partners in the company.
  - ***getHighRevenue(double s):*** this method returns an array all Partners with revenue greater than s.

- ***getExclusive(int n):*** returns an array of all Exclusive partners with nbYears greater than n.

Write a class with a main method doing the following:

- Create the 3 objects as follows:
  - partner: name = “stc”
  - exclusive: name = “mobily”, number of years: 10
  - projectbased: name = “sale”, number of project: 19
- Create the Company ”Elm”.
- Add the previously crated objects in the company.
- Display all the partners.
- Display the number of project based partners in the company.
- Display all partners with revenue greater than SAR1,000,000.
- Display all Exclusive partners with number of years greater than 10.