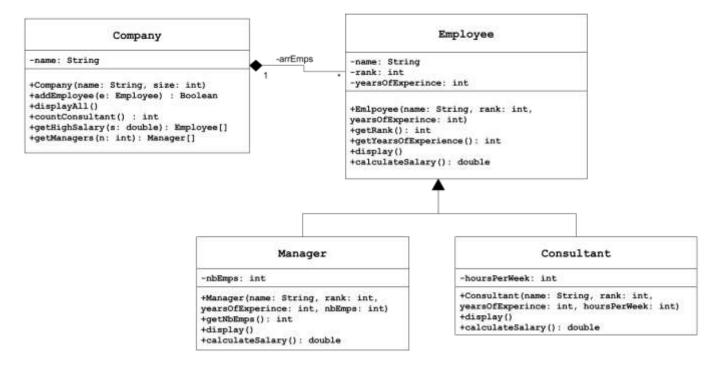
King Saud University

College of Computer and Information Sciences Department of Computer Science

CSC113 - Computer Programming II - Polymorphism Tutorial



Employee class:

- o Attributes:
 - *name*: the name of the employee.
 - rank: rank in the company structure (1-15).
 - years Of Experience: number of years of experience for the employee.
- O Methods:
 - Employee (name: String, rank: int, yearsOfExperience: int): constructor
 - *getRank()*: this method returns the rank of employee.
 - getYearsOfExperience (): returns the years of experience of the employee.
 - *display()*: this method display all the attributes of the employee.
 - *calculateSalary()*: this method calculates and return the Salary of the employee as the following:
 - o *Employee:* years of experience * 500 + rank * 1000
 - o *Manager:* years of experience * 500 + rank * 1500 + nbOfEmps * 10
 - o *Consultant:* hoursPerWeek * 1000 + rank *500

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Manager class:

- o Attributes:
 - *nbEmps*: number of employees managed.
- O Methods:
 - Manager (name: String, rank: int, yearsOfExperience: int, nbEmps: int): constructor
 - *display()*: this method display all the attributes of the manager.
 - *getNbEmps()*: this method returns the rank of employee.

Consultant class:

- o Attributes:
 - *hoursPerWeek*: number of hours per week.
- o Methods:
 - Consultant(name: String, rank: int, yearsOfExperience: int, hoursPerWeek: int): constructor
 - *display()*: this method display all the attributes of the consultant.

Company class:

- o 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.
 - countConsultant(): this method returns the number of all Consultants in the company.