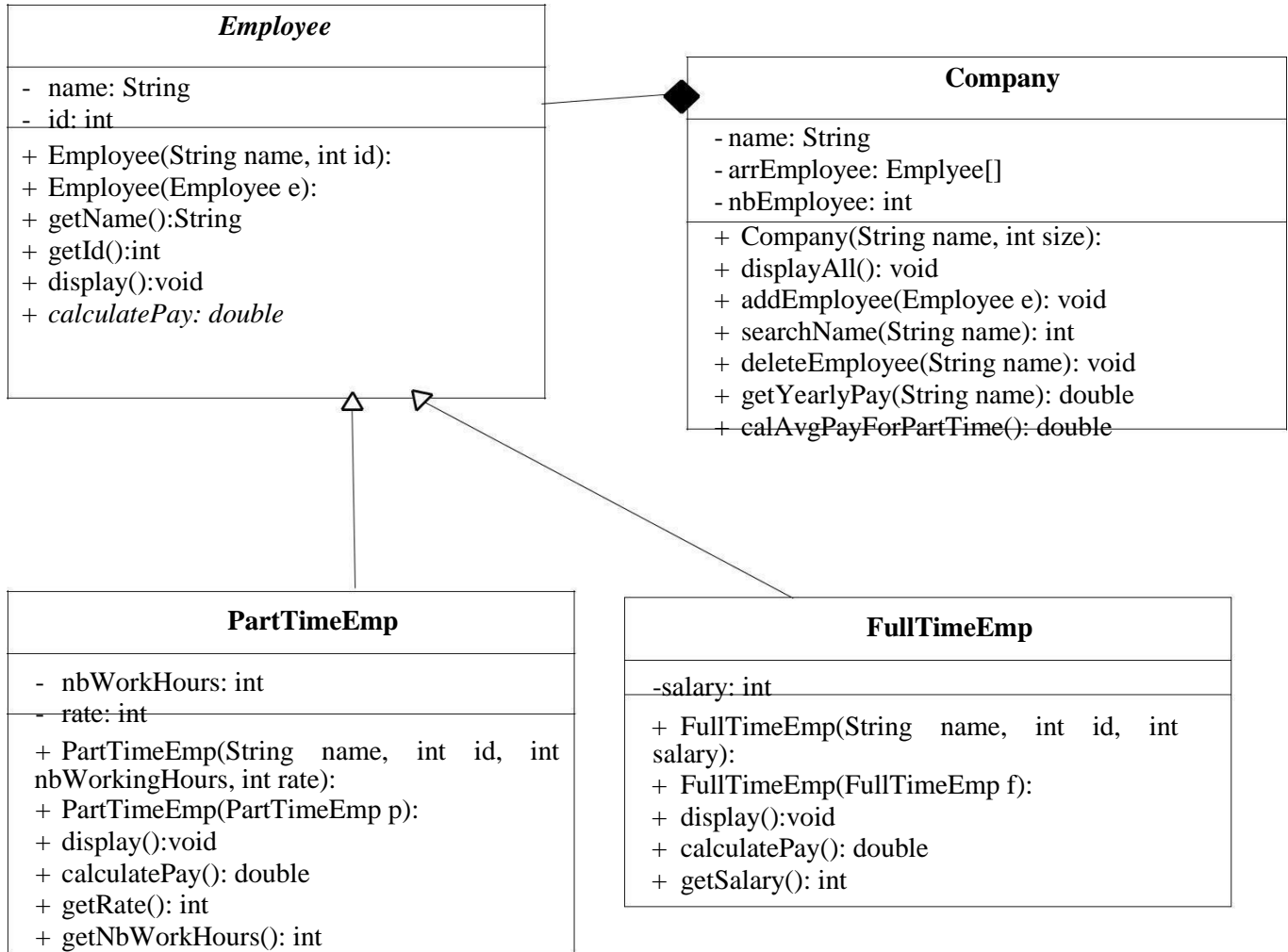


CSC-113 (Computer Programming – II)

Lab: Exception Handling



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Lab: Exception Handling

Employee

Attributes:

- name: name of the employee
- id: employee Id number

Methods:

- Employee(String name, int id)
- Employee(Employee e)
- getName()
- getId()
- display()
 - display the employee information
- calculatePay()
 - Abstract method.

PartTimeEmp

Attributes:

- nbWorkHours: number of weekly hours the employee works.
- rate: pay rate for each hour.

Methods:

- PartTimeEmp(String name, int id, int nbWorkingHours, int rate)
- PartTimeEmp(PartTimeEmp p)
- display()
 - display the part-time employee information

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- calculatePay()

- calculate and return the monthly pay for the part time employee as follows:
Monthly pay = number of hours each week * 4 * rate

- getRate()

- getNbWorkHours()

FullTimeEmp

Attributes:

- salary: Employee monthly salary

Methods:

- FullTimeEmp(String name, int id, int salary)

- FullTimeEmp(FullTimeEmp f)

-display()

- display the full-time employee information

-calculatePay()

- calculate and return the monthly pay for the part time employee as follows
Monthly pay = the salary after 9% deduction for social insurance.

- getSalary()

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Company

Attributes:

- name: company name
- arrEmployee:
- nbEmployee:

Methods:

- Company(String name, int size)
 - throws an exception when the array is created with a negative size. (NegativeArraySizeException)
- displayAll()
 - display all the employees information
- addEmployee(Employee e)
 - add new employee to the company
 - You must check the array size and throw (IllegalStateException) when trying to add while the array is full.
- searchName(String name)
 - search for the employee in the company and return the index, if the name doesn't exist return -1
- deleteEmployee(String name)
 - uses the method (searchName())
 - deletes the employee given
 - the method throws (IndexOutOfBoundsException) when trying to delete non-existent employee.
- getYearlyPay()
 - get yearly pay for the employee □
- calAvgPayForPartTime()
 - calculate the average pay for all the part-time employees
 - throws (ArithmeticException) when there're not any part-time employees in the company, since you will be dividing by zero.