Marks: 30

Duration: 3 Hours
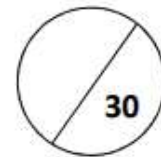
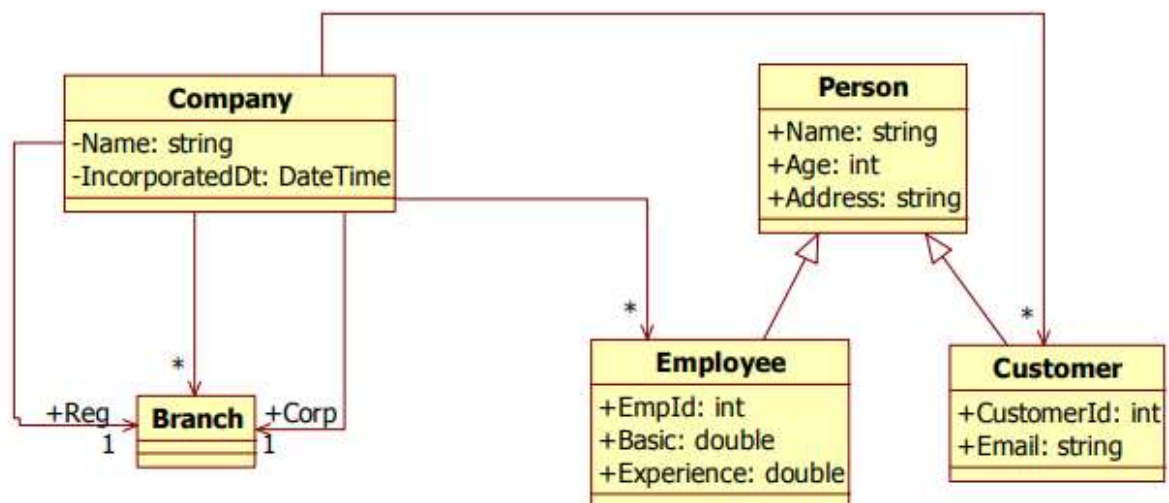# OO Programming

Iteration #: _____
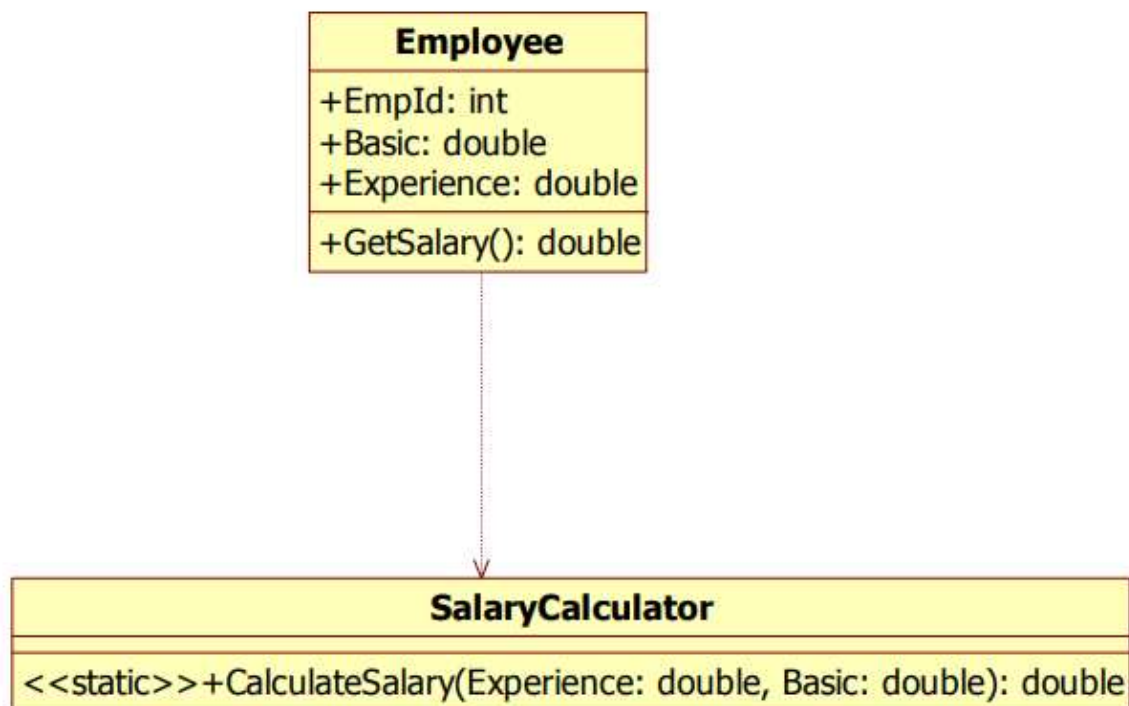
Name: _____   EMP ID: _____

Date: _____

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1. A company has different types of people like employees and customers. Employees and customers have some common details stored such as name, age and address. A company has many branches, but at least two instances as the corporate office and the registered office. All employees have employee Id, basic salary and experience. The salary of each employee is computed based on his/her basic salary and experience (in years).

2. The allowances depend on the experience and are computed as follows:

Experience (In Years)	Rate of Allowance (computed on basic)
<=2	30%
<=4	40%
<=6	50%
>6	65%

To compute the salary of the employees, a salary calculator is used. This has a static method called CalculateSalary which takes experience and basic as arguments. It returns the total allowance. Add a method called GetSalary in the employee class which returns the salary. This method uses the SalCalculator class and invokes the CalculateSalary method to get the total allowance. In the GetSalary method, add this total allowance to basic and return the total salary.

Employee
+EmpId: int +Basic: double +Experience: double
+GetSalary(): double

SalaryCalculator
<<static>>+CalculateSalary(Experience: double, Basic: double): double

3. Implement the following methods in the company class:

Get an employee by employee id

Total salary that needs to be disbursed for all the employees

Number of customers

Number of employees

Company
-Name: string -IncorporatedDt: DateTime
+GetEmployee(EmpId: int): Employee +GetTotalSalaryPayout(): double +GetTotalCustomers(): int +GetTotalEmployees(): int