❖ **Question 2: (3 marks)**

Write a class named **Employee** and a class named **Developer** extended from **Employee** (i.e. **Employee** is a super class and **Developer** is a sub class) with the following information:

Employee
- salary: double - experience: int
+ Employee() + Employee(salary: double, experience: int) + getSalary(): double + setSalary(salary: double): void + getExperience(): int + setExperience(experience: int): void + calculateBonus(): double

Where:

- Employee() - Default constructor that initializes salary and experience to 0.
- Employee(salary: double, experience: int) - Constructor that initializes salary and experience with the given values.
- getSalary(): double - Returns the value of salary.
- setSalary(salary: double): void - Sets the value of salary.
- getExperience(): int - Returns the value of experience.
- setExperience(experience: int): void - Sets the value of experience.
- calculateBonus(): double - Calculates the bonus based on experience years, knowing that: bonus = salary * (experience * 0.05). For example, if an employee has 2 years of experience, they will receive a bonus of 10% of their salary.

Developer
- projects: int
+ Developer() + Developer(salary: double, experience: int, projects: int) + toString(): String + getLevel(): String

Where:

- Developer() - Default constructor, calls the parent class constructor and sets projects to 0
- Developer(salary: double, experience: int, projects: int) - Constructor that initializes projects, salary, and experience with the given values.
- getLevel(): String - Returns description of the developer's level. If the number of projects is greater than or equal to 5, it returns "Senior Developer"; otherwise, it returns "Junior Developer". The returned content does not contain double quotation marks.
- toString(): String - Returns a string in the format: salary-experience-projects-getLevel(), where each value is separated by a hyphen. Salary must be formatted to two decimal places.

Do not format the result. The program output might look something like this:

Enter salary: 1000000 Enter experience (in years): 2 Enter number of projects: 1 1. Test calculateBonus() 2. Test getLevel() 3. Test toString() Enter TC(1/2/3): 1 OUTPUT: 100000.00	Enter salary: 5000000 Enter experience (in years): 2 Enter number of projects: 10 1. Test calculateBonus() 2. Test getLevel() 3. Test toString() Enter TC(1/2/3): 2 OUTPUT: Senior Developer
Enter salary: 5000000 Enter experience (in years): 2 Enter number of projects: 4 1. Test calculateBonus() 2. Test getLevel() 3. Test toString() Enter TC(1/2/3): 2 OUTPUT: Junior Developer	Enter salary: 5000000 Enter experience (in years): 2 Enter number of projects: 10 1. Test calculateBonus() 2. Test getLevel() 3. Test toString() Enter TC(1/2/3): 3 OUTPUT: 5000000.00-2-10-Senior Developer