

COM2044 LAB Q1

Q1-) Write a class structure and a test class in Java according to the following rules:

1. Define an abstract class Employee with:
 - String name and double salary fields.
 - A method double calculateBonus() as an abstract method.
2. Create two subclasses: Manager and Developer:
 - In the Manager class, the bonus is calculated as 20% of the salary.
 - In the Developer class, the bonus is calculated as 10% of the salary.
3. Create a Company class:
 - This class should have an Employee[] employees array with a maximum of 10 employees.
 - Use an int count to keep track of the number of employees.
 - The method void addEmployee(Employee e) should add employees to the array.
 - The method void printAllBonuses() should print all employees' names and their bonus amounts using polymorphism.
4. In the Main class:
 - Create at least 2 Manager and 2 Developer objects.
 - Add these objects to the company.
 - Print the salary bonus

Manager 1: name: Alice salary: 10000

Manager 2: name: Bob salary: 12000

Developer 1: name: Charlie salary: 8000

Developer 2: name: David salary: 9500

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Alice - Salary: 10000.0 - Bonus: 2000.0
Bob - Salary: 12000.0 - Bonus: 2400.0
Charlie - Salary: 8000.0 - Bonus: 800.0
David - Salary: 9500.0 - Bonus: 950.0
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