

Java assignment 2

Java Simple Programs

1. Create a class Square and test it. The class Square has exactly one data member length. Your class must provide `getLength()`, `setLength()`, and `toString()` methods. There are two application specific methods: `getArea()` and `getPerimeter()`.
2. Create a Circle class and test it. The class Circle has exactly one data member radius. Your class must provide `getRadius()`, `setRadius()`, and `toString()` methods. There are two application specific methods: `getArea()` and `getCircumference()`. Use `Math.PI`, a constant defined in Math class in your code for the value of pi.
3. Create a PhoneNumber class and test it. The instance variables are first name, last name, and phone numbers. The application specific method returns a String of the form last name, first name, and phone number.
4. Create an employee class and test it. The instance variables are first name, last name, and annual salary. There are two application specific methods. The first method returns the monthly salary. The second method returns bonus calculated as a percentage of the annual salary plus 1000. The percentage is an explicit parameter of this method.
5. According to the grading policy, final grade is determined by the average of four test scores. Design and test a class to compute the average of four test scores (do not forget the student name).
6. Write a program that prompts the user to input time in seconds. The program should then output in day hour minute second format. Design and use appropriate class(es).
7. Write a program to create a shorter version of the name from full name. A name such as Meera S. Nair will have a shorter format M.S. Nair. Design and use appropriate class(es).
8. Write a program to estimate the profit from a particular product for a month. Information such as product name, unit cost, sale price, and average number of items sold per month are available. Note that product name may consist of many words such as "Hunter Miller 56in Ceiling Fan." Design and use appropriate class(es).