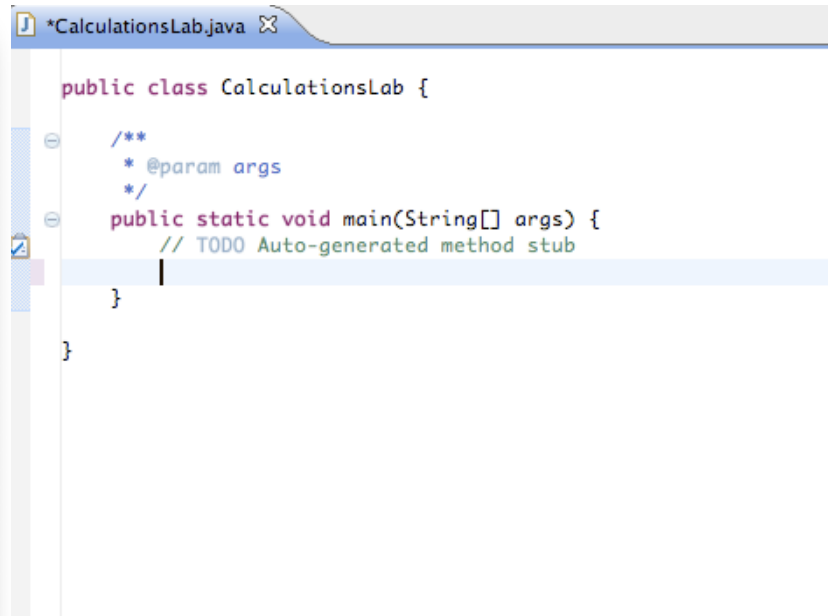
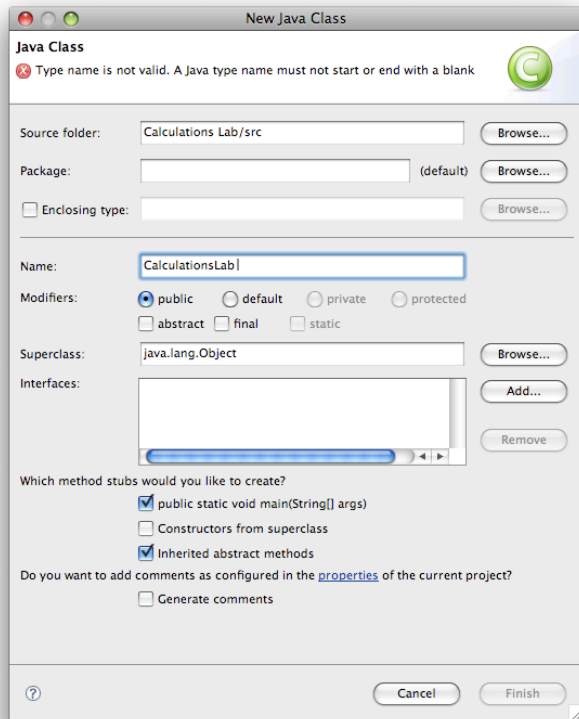


This lab will give you basic practice with performing calculations using java. You will also be asked to consider what is the correct type of data to use. Please practice using declaration, assignment, and initialization statements, as well as using variables that have stylistically correct names. Also of great importance will be prompting for user input and printing out the results of your calculations. To get started in eclipse, create a new java project called CalculationsLab. In your project create a new class called CalculationsLab. Make sure you check the box to create a main method! You will write all of your code inside of the main method.



Here are the following calculations that I want you to perform.

- 1) Create a variable to hold an amount of gas and assign the value of 50 to it. Create another variable to hold the price of gas and assign the value of \$2.80 to it. Create a new variable to hold the cost of buying the amount of gas. Assign the value of this variable using the two variables you previously created. Print out the cost of buying the gas.
- 2) Create and use variables to answer this question: a car travels 1422 miles at 30 mph. How long was the car driven? (Try this problem by hand - does your answer match the computer's answer?)
- 3) Create and use variables to answer this question: It takes you 42 minutes to take a test. How many total seconds did the test take you to complete?
- 4) Create and use variables to answer this question: three of your friends get the grades of 75, 82, and 90 on their tests. What is their average grade? (Try this problem by hand - does your answer match the computer's answer?)
- 5) Create and use variables to answer this question: the perimeter of a rectangle is 200 and the width is 40. What is the height? What is the area?
- 6) Create and use variables to perform this task: **ask** the user (you'll need to use the EasyReader file **or** the Prompter file) for the base and height of a triangle. Print out the area.

7) Extra: Create a new class in your project called `WrittenCalculations` - it should also have a main method. (When you run your program, make sure you have `WrittenCalculations.java` selected!). In this main method, prompt the user for the coordinates of two points and then **write** the slope between the two points to a text file - you will need to include the `EasyWriter.java` file in your project. See the top of the `EasyWriter.java` file for an example of how to use `EasyWriter`.

8) Extra 2: Make your program do something awesome and cool - the best way to learn programming is to make programs do what you want them!