For this coding assignment, you are required to write two different programs. Zip all (.java) files and upload a .zip file through Moodle before May 31st midnight.

Late submissions are not accepted!

## First Program

For the first program, you will be required to code a Class (call it FirstProgram) with the 'main' method. Inside the 'main' method, you should do the following:

- 1) declare two ints ('firstInt', 'secondInt') and initialize them with values
- 2) declare a double ('doubleResult') and assign it firstInt/secondInt (firstInt divided by secondInt), then print it
- 3) next, reassign the variable 'doubleResult' the value of firstInt divided by secondInt but make sure that no data is lost (prevent truncation), then print the result
- 4) declare a double ('myDouble') and assign it a value
- 5) declare an int ('resultInt') and assign it the value of 'myDouble'. This can only be done with casting
- 6) declare three variable of type 'short', assign the third variable to be equal to the first two (casting may be required)

Make sure you comment your code!

## Second Program

For the second program, you will be required to code the following:

- 1) Create a 'SecondProgram' class that includes the 'main' function
- 2) Create a 'Student' class with the following variables:
  - 1) firstName (String)
  - 2) lastName (String)
  - 3) gpa (double)
  - 4) age (int)
- 3) Create a constructor with the three following parameters:
  - 1) fullName: (full name String separated by a space), example: "Steve Jobs"
  - 2) gpa
  - 3) age
    - The constructor should assign the gpa and age according to the values provided in the parameters
    - The constructor then should break the full name into two strings (first name and last name) and assign their values accordingly.
      - To do that, you can first look for the space in fullName, then use the method <u>substring(beginningIndex, endIndex)</u> to break the String into subsets. For example, if we have: String company = "JetBrains", if you do the following: company.substring(2, 5), the result will be "tbr"
- 4) Lastly, create three instances of the Class 'Student' in your 'main' function and assign the instances/objects values through Student's constructor.

Make sure you comment your code!