

Lab 3

Create a new Eclipse project named **YourStudentId_OOP_Lab3** and add two classes named **Lab3**, and **Dismantle** to the project (The question1~6 should be written in the Lab3 class, and question 7 should be written in the Dismantle class).

1. Declare some (at least 2 integer variables and 2 decimal variables) valid variables of java primitive data types (int,float,). Display them in your eclipse console output.
2. Do some mathematical operations with some arithmetic operators (, -, *, /...). Display the results in your eclipse console output.
3. Try to assign a decimal variable to an integer variable. What happens? Write your explanations in Java comment.
4. Try to assign an integer variable to a decimal variable. What happens? Write your explanations in Java comment.
5. Declare an integer constant variable named *days_of_month*, and assign 30 to it.
6. Declare a byte variable, and assign *days_of_month* to them, then display the results in the console.
7. **Dismantle digits (Write in Dismantle class)**

Write a program that reads a three-digit number entered by the user, and show the result of the sum, product and difference of all its digits (The equation of the difference is hundred's digit minus ten's digit minus unit's digits). For example, if an integer is 321, the sum of all its digits is 6, the product of all its digits is 6, and the difference of all its digits is 0.

- Declare four variables named *num*, *hundred*, *ten*, *unit*.
- Print out the message “*Please enter a three-digit number:* ” to remind user.
- Use scanner object named *numScanner* to read the value of user’s input and assign it to the *num* variable.
- Assign the value of hundreds, ten, and unit digit to *hundreds*, *ten*, *unit* variables.
- After calculation and display as sample output result.

Sample output (the green one is user input):

```
Please enter a three-digit number:321
The sum is: 6
The product is: 6
The difference is: 0
```

Submission: Submit your project as “zip (or rar) file” via Moodle. No other submissions will be graded.

Reminder: Please zip **the whole project**

Deadline: Tomorrow’s midnight (for both Mon56 and Tue23)