## Lab 2 Program 1: Dealer

Write a Java program named **Dealer** that has the following properties:

1. Package and Directory Structure:
   Place the program in the package <your_lastname>.<your_firstname>.lab2. To do this, you should first create a directory structure corresponding to your package. Begin by creating a directory named after your last name. Inside this directory, create a sub-directory named after your first name. Finally, within this sub-directory, create another sub-directory named lab2. The example of how the Dealer.java file should be placed for the package is shown in Figure 1. Additionally, make sure to declare the package on the first line of your Dealer.java file as demonstrated in the example in Figure 2.
2. Program Arguments and Output:
   The program will take three arguments:
   1. The first argument is for the dealer's name.
   2. The second argument is for the number of clients.
   3. The third argument is for the gender.
3. The output should be formatted as shown in Figure 3. If any argument contains spaces, enclose it in double quotes. This prevents the program from misinterpreting a single argument with spaces as multiple separate arguments.
4. Argument Validation: Ensure that the arguments in the program are input correctly. Specifically, check if there are exactly three arguments. If not, display the error message as shown in Figure 4. Remember to use System.err instead of System.out for displaying the error message.
5. Program Comments:
   The program should include comprehensive comments that:
   1. Describe the purpose of the program.
   2. Provide details about the programmer.
   3. Indicate the date of the last update.

   For guidance on how to effectively write these comments, please refer to Figure 5.

**Package and Directory Structure**:

- Place the program in the package
  `<your_lastname>.<your_firstname>.lab2`.
- Create directories matching this package structure as shown in **Figure 11**.
- Include the package declaration at the top of your `Dealer.java` file as shown in **Figure 12**.
  - *Briefly*, note that while Python modules are single `.py` files and packages are directories with `__init__.py`, Java packages are declared in your code and must exactly match the directory structure.
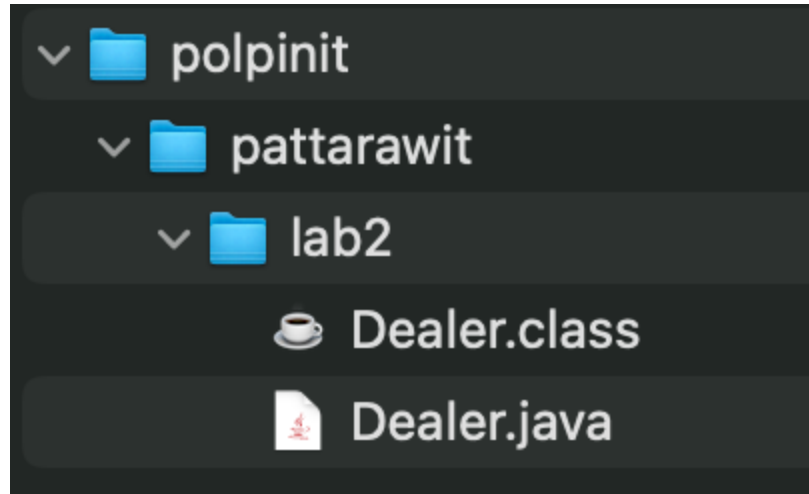
**Figure 1**: Example of how the Dealer.java file should be placed for the directories.



**Figure 2:** Example of how to place a package on the first line of your Java file.



**Figure 3** : The output of the **Dealer** program, when the input arguments are "Boss Paul", 1000000, and Male



**Figure 4**: The error message will be displayed if exactly three arguments are not input.

```
/**
 * The Dealer Program:
 * This program accepts three arguments then processes
 * and displays dealer information.
 * The output should be
 * Dealer's name : <dealer_name>.
 * Number of clients : <num_clients>
 * Gender : <dealer_gender>
 *
 * Author: Pattarawit Polpinit
 * ID : 987654321-0
 * Sec : 1
 */
```

**Figure 5:** Example of an effective program comment to be added
at the beginning of your code