

## **Class 7**

1. What is a Java bean?
2. Are Design patterns are language dependent?
3.
  - Create a singleton which is used to write logs into a file.
  - The singleton will have a method which gets a String and write it into the file (name the output file: log.txt).
  - Create another class which gets the following input (using Scanner) from the user:
    - Name
    - Age
    - Address
    - Phone number
  - Write each input into the log file separately (in the singleton).

#### 4. Using Factory pattern

- Create an interface named Drivable with a void method drive()
- Create 3 classes implementing Drivable
  - Fiat
  - BMW
  - Porsche

Each class will print the following inside drive() method:

- Fiat – 100
    - BMW – 140
    - Porsche – 180
  - Create a CarFactory class
  - Create a static method getCar() which will get a String argument which can be Fiat / BMW / Porsche and will return an instance of an object accordingly.
- \*\* In case a different String is send throw an exception.
- Create a FactoryTest class which will create a car object and call drive() method.

5. Clone Selenium Webdriver project  
<https://github.com/SeleniumHQ/selenium>

6. Create a new Java project (any) and upload it to Github

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Question #	What to send me?
5	Screenshots of your local folder containing the above repository
6	Link to your repository

7. What is Maven repository and what is it used for?

## CHALLENGES:

8.

- Read about threads

<https://docs.oracle.com/javase/tutorial/essential/concurrency/procthread.html>

- Write a thread safe singleton

9. Name 3 more Java design patterns and write in a few words what they are used for.

10. Name 2 more project management tools which can be used in Java.