Week 1
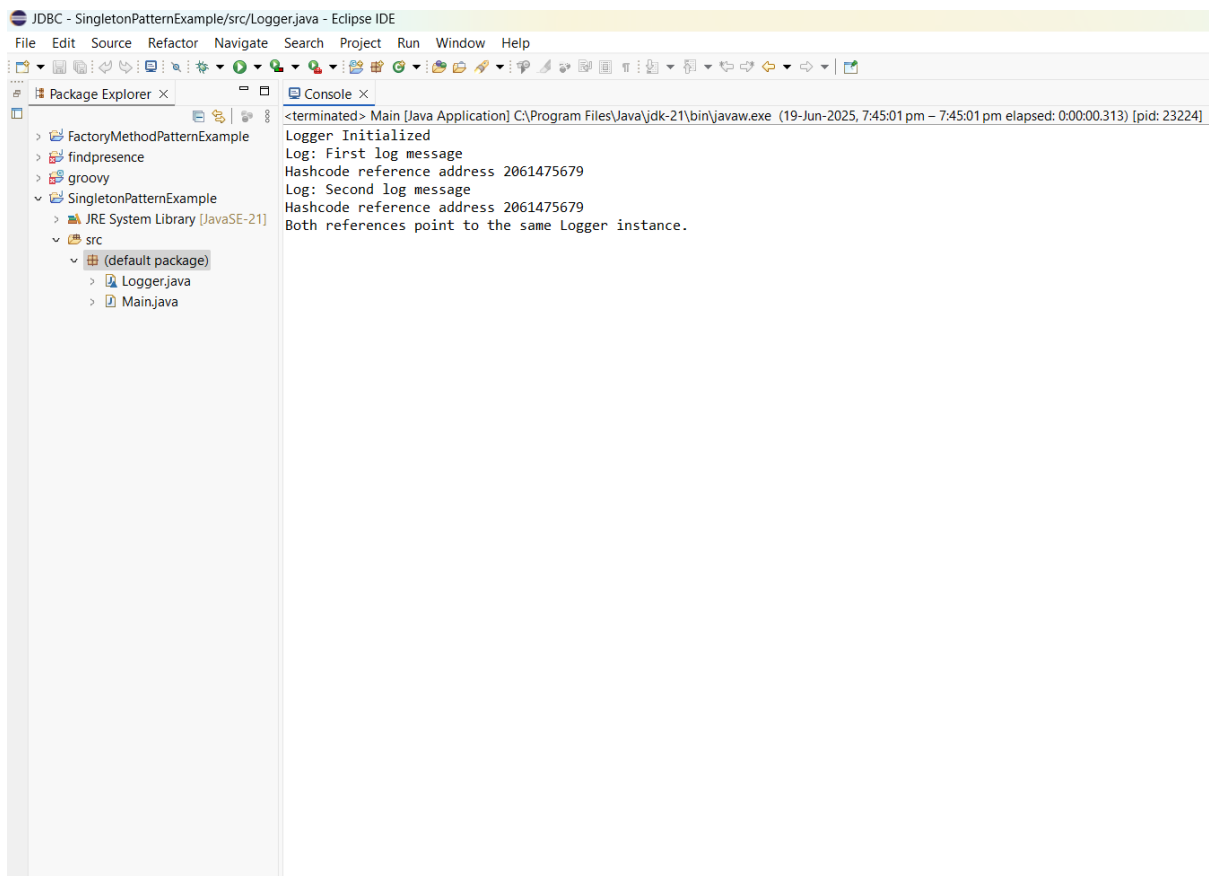
Design Principles And Patterns Hands On

Exercise 1: Implementing the Singleton Pattern

Output snapshots:

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

sample.groovy   Main.java ×   Logger.java

```java
public class Main {
    public static void main(String[] args) {
        Logger logger1 = Logger.getInstance();
        logger1.log("First log message");
        System.out.println("Hashcode reference address "+logger1.hashCode());

        Logger logger2 = Logger.getInstance();
        logger2.log("Second log message");
        System.out.println("Hashcode reference address "+logger2.hashCode());


        if (logger1 == logger2) {
            System.out.println("Both references point to the same Logger instance.");
        } else {
            System.out.println("Different instances exist!");
        }
    }
}
```

Console ×

<terminated> Main [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (18-Jun-2025, 7:53:45 pm – 7:53:47 pm elapsed

```
Logger Initialized
Log: First log message
Hashcode reference address 2061475679
Log: Second log message
Hashcode reference address 2061475679
Both references point to the same Logger instance.
```