Exercise 1 - Singleton Pattern

# Code: Singleton.java

public class Singleton {  
  
 static class Logger {  
 private static Logger instance;  
  
 private Logger() {  
 System.out.println("Logger Created");  
 }  
  
 public static Logger getInstance() {  
 if (instance == null) {  
 instance = new Logger();  
 }  
 return instance;  
 }  
  
 public void log(String message) {  
 System.out.println("Log: " + message);  
 }  
 }  
  
 public static void main(String[] args) {  
 Logger logger1 = Logger.getInstance();  
 Logger logger2 = Logger.getInstance();  
  
 logger1.log("This is the first log.");  
 logger2.log("This is the second log.");  
  
 System.out.println("Are both loggers the same? " + (logger1 == logger2));  
 }  
}

# Output:

"C:\Program Files\Java\jdk-17.0.5\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.1.2\lib\idea\_rt.jar=51522" -Dfile.encoding=UTF-8 -classpath "D:\DeepSkill Cognizant\Single\out\production\Single" SingletonTest  
Logger Created  
Log: This is the first log.  
Log: This is the second log.  
Are both loggers the same? true  
  
Process finished with exit code 0