**Exercise 1: SingletonPatternExample**

**Code:**

***Logger.java***

package assignments.cts;

public class Logger {

private static Logger *obj*;

private Logger() {

System.***out***.println("Logger instance created");

}

public static Logger getInstance() {

if (*obj* == null) {

*obj* = new Logger();

}

return *obj*;

}

public void log(String message) {

System.***out***.println("LOG: " + message);

}

}

***Main.java***

package assignments.cts;

public class App

{

public static void main( String[] args )

{

Logger obj1 = Logger.*getInstance*();

obj1.log("Application started - point 1.");

Logger obj2 = Logger.*getInstance*();

obj2.log("Application started - point 2");

if (obj1 == obj2) {

System.***out***.println("Both obj1 and obj2 refer to the same instance.");

} else {

System.***out***.println("Different instances exist (Singleton pattern failed).");

}

}

}

**Output:**

