Exercise 1: Implementing the Singleton Pattern

class Logger {

private Logger() {}

private static class LoggerHolder {

private static final Logger INSTANCE = new Logger();

}

public static Logger getInstance() {

return LoggerHolder.INSTANCE;

}

public void log(String message) {

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

}

}

public class Main {

public static void main(String[] args) {

Logger logger1 = Logger.getInstance();

Logger logger2 = Logger.getInstance();

logger1.log("System initialized.");

logger2.log("Singleton confirmed.");

System.out.println(logger1 == logger2); // true

}

}

