Singleton Pattern Example

Logger.java

package singletonpattern;

public class Logger {

    private static Logger instance;

    private Logger() {

        // Private constructor to prevent instantiation

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

    }

    public static Logger getInstance() {

        if (instance == null) {

            instance = new Logger();

        }

        return instance;

    }

    public void log(String message) {

        System.out.println("Log: " + message);

    }

}

Main.java

package singletonpattern;

// Main.java

public class Main {

    public static void main(String[] args) {

        Logger logger1 = Logger.getInstance();

        Logger logger2 = Logger.getInstance();

        logger1.log("Message from logger1");

        logger2.log("Message from logger2");

        System.out.println("Are both logger instances the same? " + (logger1 == logger2));

    }

}

