**SingletonPattern Example**

**Logger.java**

package com.singleton;

public class Logger {

    private static Logger instance;

    private Logger() {

        System.out.println("Logger initialized.");

    }

    public static Logger getInstance() {

        if (instance == null) {

            instance = new Logger();

        }

        return instance;

    }

    public void log(String message) {

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

    }

}

**LoggerTest.java**

package com.singleton;

public class LoggerTest {

    public static void main(String[] args) {

        Logger logger1 = Logger.getInstance();

        logger1.log("First message.");

        Logger logger2 = Logger.getInstance();

        logger2.log("Second message.");

        if (logger1 == logger2) {

            System.out.println("Both logger instances are the same (singleton works).");

        } else {

            System.out.println("Logger instances are different (singleton failed).");

        }

    }

}

