Logger.java :

package com.week1;

public class Logger {

private static Logger instance;

private Logger() {

System.out.println("Logger is ready to use");

}

public static Logger getInstance() {

if (instance == null) {

instance = new Logger();

}

return instance;

}

public void log(String message) {

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

}

}

LoggerTest.java :

package com.week1;

public class LoggerTest {

public static void main(String[] args) {

Logger logger1 = Logger.getInstance();

logger1.log("Starting the application...");

Logger logger2 = Logger.getInstance();

logger2.log("Application is running.");

if (logger1 == logger2) {

System.out.println("Same logger used throughout. Singleton works!");

} else {

System.out.println("Different loggers used. Singleton failed!");

}

}

}