public class Logger {

// Private static instance of the Logger class

private static Logger instance;

// Private constructor to prevent instantiation from outside

private Logger() {

// Optional: Initialize any resources if necessary

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

}

// Public static method to provide access to the instance

public static Logger getInstance() {

if (instance == null) {

// If instance is null, create a new one

instance = new Logger();

}

// Return the single instance

return instance;

}

// Method to log messages

public void log(String message) {

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

}

}