**PROGRAM:**

public class Singleton{  
 static class Logger {  
 private static Logger *instance*;  
 private Logger(){  
  
 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: "+message);  
 }  
 }  
 public static void main(String[] args){  
 Logger logger1=Logger.*getInstance*();  
 Logger logger2=Logger.*getInstance*();  
 logger1.log("First log message");  
 logger2.log("Second log message");  
 if (logger1==logger2){  
 System.*out*.println("Both logger1 and logger 2 refer to the same instance");  
 }  
 else{  
 System.*out*.println("Different instances exist!");  
 }  
 }  
}

**OUTPUT:**

