

Program Specification

CISCO System Log Message

1 PROGRAM DESCRIPTION

Write a class called `SystemMessage` that contains instance data that represents the data contained in a Cisco System Message (defined below). Define the `SystemMessage` constructor to initialize these values. Include getter and setter methods for all instance data, and a `toString` method that returns a description of the message. Add a method called `isSevere` that returns a boolean indicating if the message is severe requiring immediate attention.

2 OUTPUT DESCRIPTION

Create a driver class called `MessageLog`, whose main method instantiates and updates several `SystemMessage` objects.

Table 1 System Log Message Elements

Element	Description
<code>seq no:</code>	Stamps log messages with a sequence number only if the <code>service sequence-numbers</code> global configuration command is configured. For more information, see the "Enabling and Disabling Sequence Numbers in Log Messages" section .
<i>timestamp formats:</i> <code>mm/dd hh:mm:ss</code> or <code>hh:mm:ss</code> (short uptime) or <code>d h</code> (long uptime)	Date and time of the message or event. This information appears only if the <code>service timestamps log [datetime log]</code> global configuration command is configured. For more information, see the "Enabling and Disabling Time Stamps on Log Messages" section .
<i>facility</i>	The facility to which the message refers (for example, SNMP, SYS, and so forth). A facility can be a hardware device, a protocol, or a module of the system software. It denotes the source or the cause of the system message.
<i>severity</i>	Single-digit code from 0 to 7 that is the severity of the message. For a description of the severity levels, see Table 3 .
<i>MNEMONIC</i>	Text string that uniquely describes the message.
<i>description</i>	Text string containing detailed information about the event being reported.

<https://www.cisco.com/c/en/us/td/docs/routers/access/wireless/software/guide/SysMsgLogging.html#wp1054470>

Table 3 Message Logging Level Keywords

Level Keyword	Level	Description	Syslog Definition
emergencies	0	System unstable	LOG_EMERG
alerts	1	Immediate action needed	LOG_ALERT
critical	2	Critical conditions	LOG_CRIT
errors	3	Error conditions	LOG_ERR
warnings	4	Warning conditions	LOG_WARNING
notifications	5	Normal but significant condition	LOG_NOTICE
informational	6	Informational messages only	LOG_INFO
debugging	7	Debugging messages	LOG_DEBUG

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3 WHAT TO TURN IN

- Your code
- Multiple Documented Test Cases