# SENG2040 Task 5 – Logging

Individual Task

## Purpose

The purpose of this task is to explore logs, logging services, and log viewers.

## Your Task

You have an upcoming assignment that will involve developing a logging service that could be used for projects and assignments.

Your task today is to experiment with and examine some logging tools.

## Requirements

Length: As long as needed

Format: PDF (WARNING: Any other format will be ignored)

Requirements:

* Please use THIS EXACT MS Word template and format – do not change the fonts, sizes, or styles.
* Please DELETE the task specification text (i.e. this text)
* Please use heading and styles to make your notes clear
* Ensure that your name is included in the heading 1 banner at the top of the page
* Please complete and include the information outlined later in this document, in the order presented.

Submit your electronic document, in PDF format to the task 5 assignment folder before the due deadline. Please name the file with your name(s) – i.e. jsmith1234\_t\_w5.pdf – or you will not receive credit for it.

# Logging Exploration Task <<YOUR NAME HERE>>

We will be exploring the Linux syslog, a common logging format. You can use any available Linux machine or VM that you might have. From a command prompt install the package “lnav” using the commands:

sudo apt update

sudo apt install lnav

You will be using lnav to examine log files.

## Directory Listing of /var/log

Change to the /var/log directory, and use ls to get a listing of the files there.

<< Paste a screenshot of the contents of /var/log here>>

## Looking at a Log File

Most Linux / Unix log files are just plain text files. Let’s take a look at one of them using the “more” command, by typing

more syslog

(on Ubuntu – may be more messages if you are using a different distribution)

This will page through the system log – one screen at a time.

<< Paste a screenshot of one page of your system log here >>

You will notice there is a lot of information in the syslog – this can make working with it painful. Thankfully, there are good tools for this.

## Let’s try lnav

The tool lnav is one tool that can be used for working with log files of any sort – not just syslog. This time, look at your log file using

lnav syslog

You will find a much more colourful and possibly useful view of the system log files.

<< Paste a screenshot of running lnav syslog here >>

You can find the documentation for lnav here: <https://docs.lnav.org/en/latest/index.html>

One helpful key command – Control R will reset the display and remove any filters you apply.

### Additional Tasks

Please include screenshots showing each of the following. Please label each one with the number and text below, and keep this order.

1. The very beginning / top of the syslog
2. The very end / bottom of the syslog
3. Apply a filter to the display so that it shows only log messages with the text “kernel” in them
4. An lnav screenshot of any other log file from /var/log, showing “interesting” log messages
5. An lnav screenshot showing an error (your syslog likely has one, but if not, you may have to look for one in another log file)