

# Week Report 3

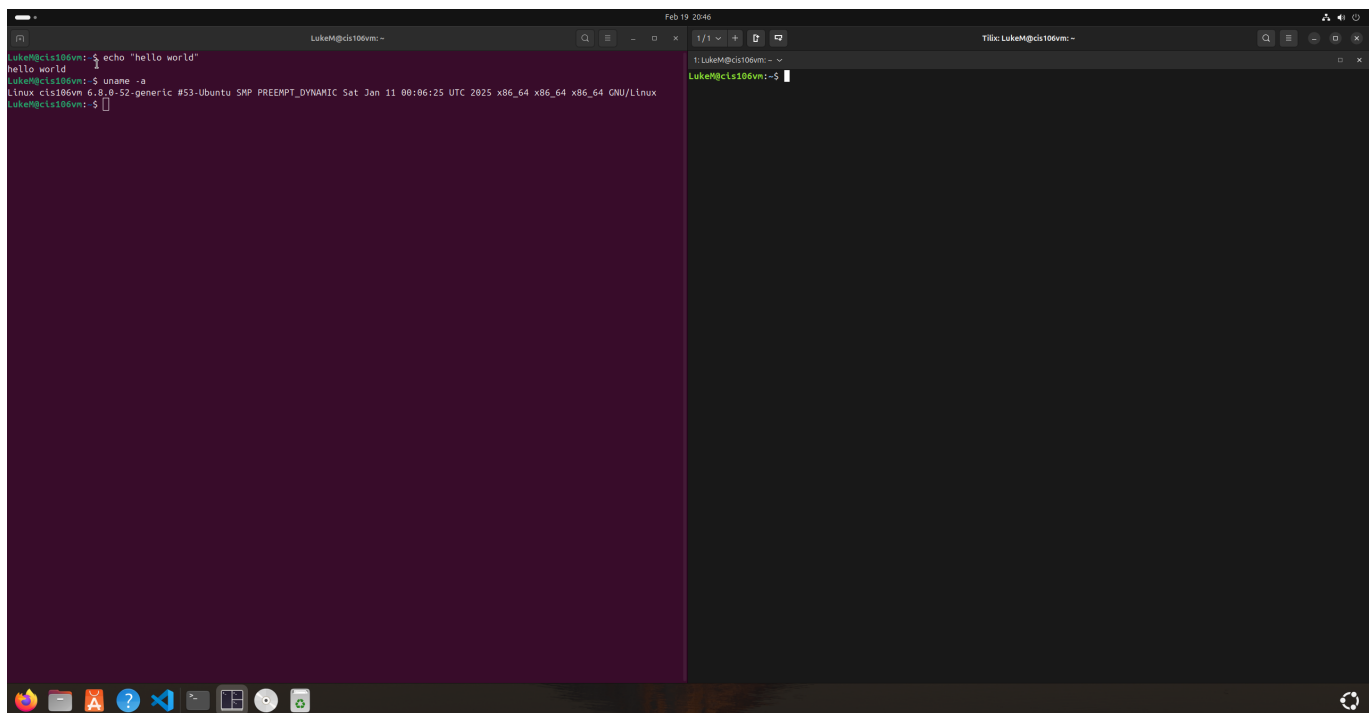
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## Completed work for week 3

- [Lab3](#)
- [Notes 3](#)

## Practice

### Practice 1

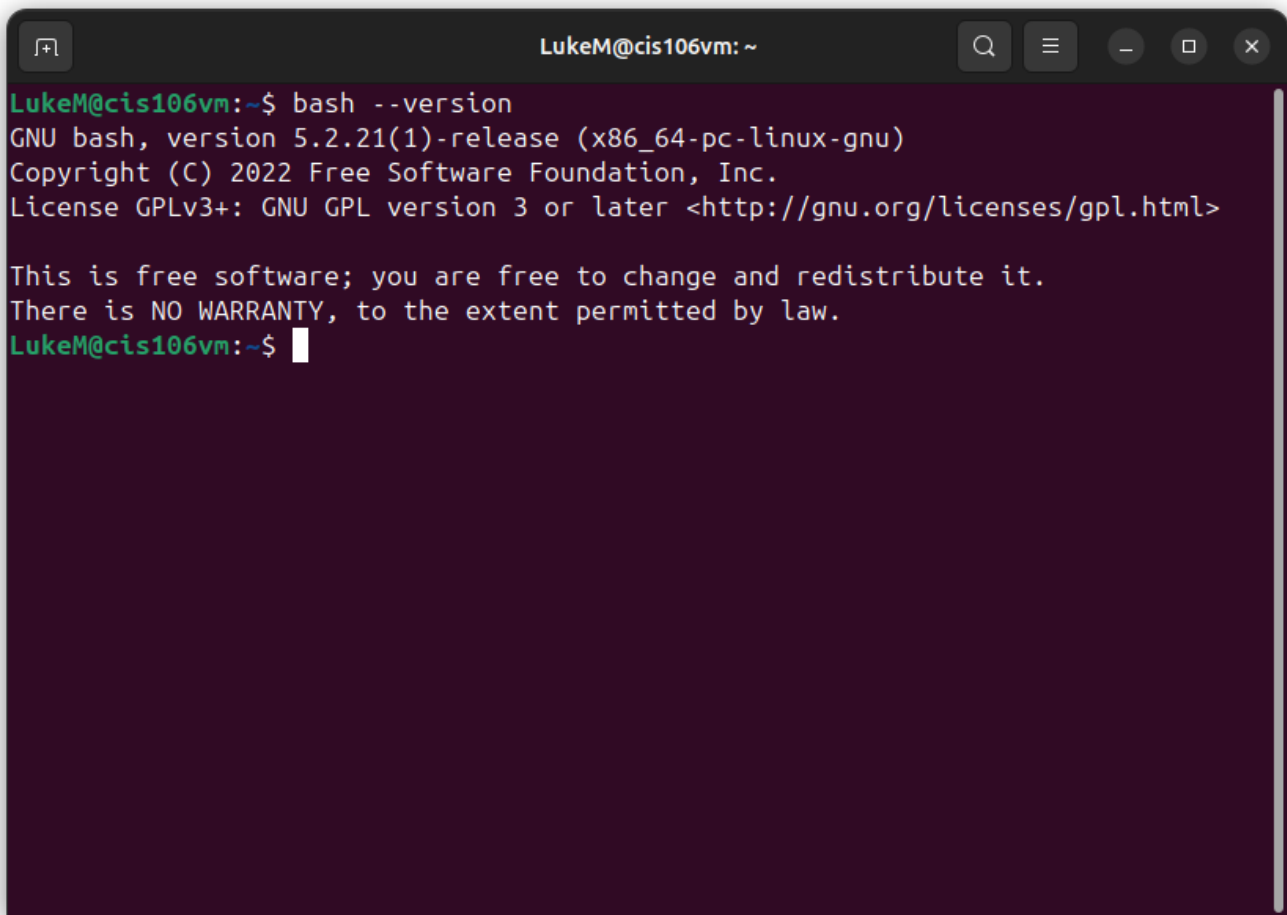


The screenshot shows a terminal window with the following content:

```
luke@cis106vm:~$ echo "hello world"
hello world
luke@cis106vm:~$ uname -a
Linux cis106vm 6.8.0-52-generic #53-Ubuntu SMP PREEMPT_DYNAMIC Sat Jan 11 00:06:25 UTC 2025 x86_64 x86_64 GNU/Linux
luke@cis106vm:~$
```

The terminal window is titled "LukeM@cis106vm: ~" and has a search bar and window controls at the top. The bottom of the window shows a taskbar with various application icons.

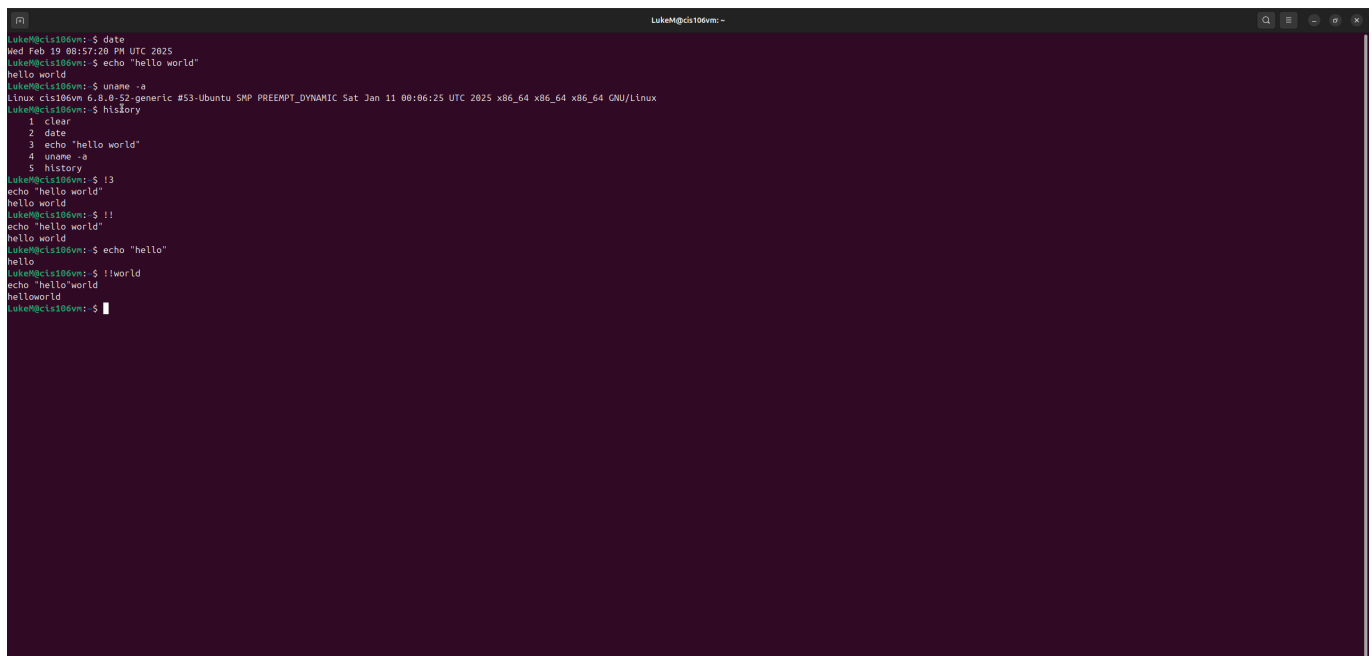
### Practice 2

A terminal window titled 'LukeM@cis106vm: ~' with standard window controls. The user has entered the command 'bash --version'. The output displays the GNU bash version 5.2.21(1)-release for x86\_64-pc-linux-gnu, its copyright (C) 2022 by the Free Software Foundation, Inc., and the GPL license information. It also includes a disclaimer about free software and warranty.

```
LukeM@cis106vm:~$ bash --version
GNU bash, version 5.2.21(1)-release (x86_64-pc-linux-gnu)
Copyright (C) 2022 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>

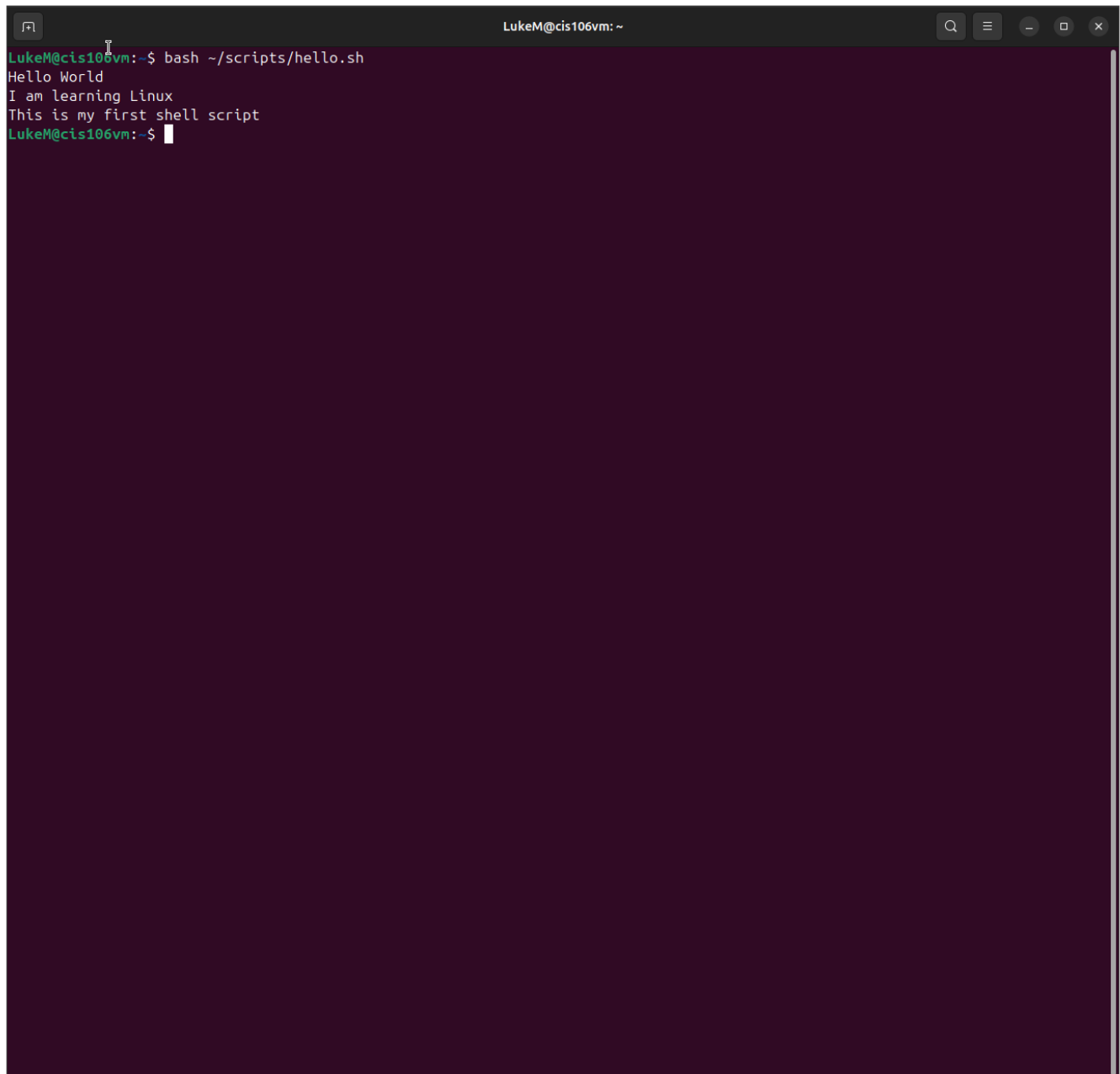
This is free software; you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
LukeM@cis106vm:~$
```

### Practice 3

A terminal window titled 'LukeM@cis106vm: ~' showing a series of commands and their outputs. The commands include 'date', 'echo', 'uname -a', 'history', 'clear', and 'cat'. The outputs show the current date, the string 'hello world', system information, command history, and the contents of a file named 'hello'.

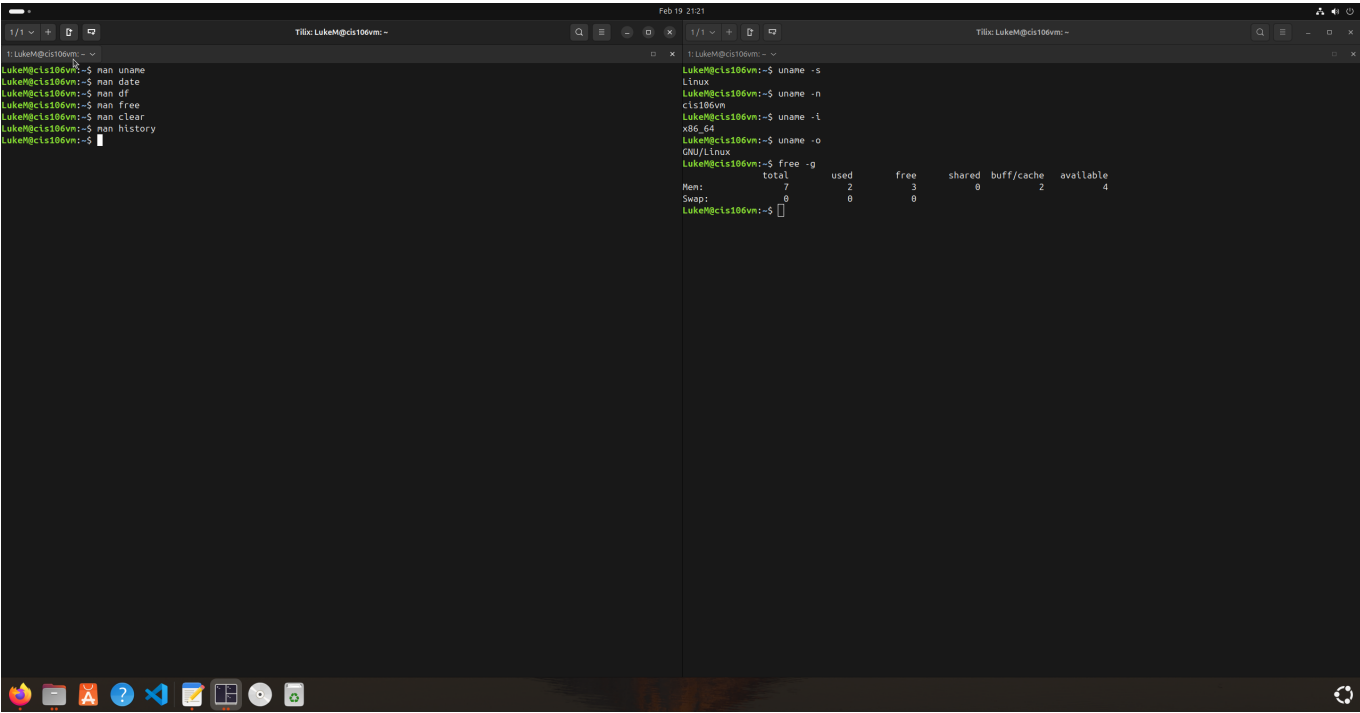
```
LukeM@cis106vm:~$ date
Wed Feb 19 00:57:20 PM UTC 2025
LukeM@cis106vm:~$ echo "hello world"
hello world
LukeM@cis106vm:~$ uname -a
Linux cis106vm 6.8.0-52-generic #53-Ubuntu SMP PREEMPT_DYNAMIC Sat Jan 11 00:06:25 UTC 2025 x86_64 x86_64 GNU/Linux
LukeM@cis106vm:~$ history
1 clear
2 date
3 echo "hello world"
4 uname -a
5 history
LukeM@cis106vm:~$ cat
echo "hello world"
hello world
LukeM@cis106vm:~$ !
echo "hello world"
hello world
LukeM@cis106vm:~$ echo "hello"
hello
LukeM@cis106vm:~$ !world
echo "hello"world
hello
LukeM@cis106vm:~$
```

### Practice 4

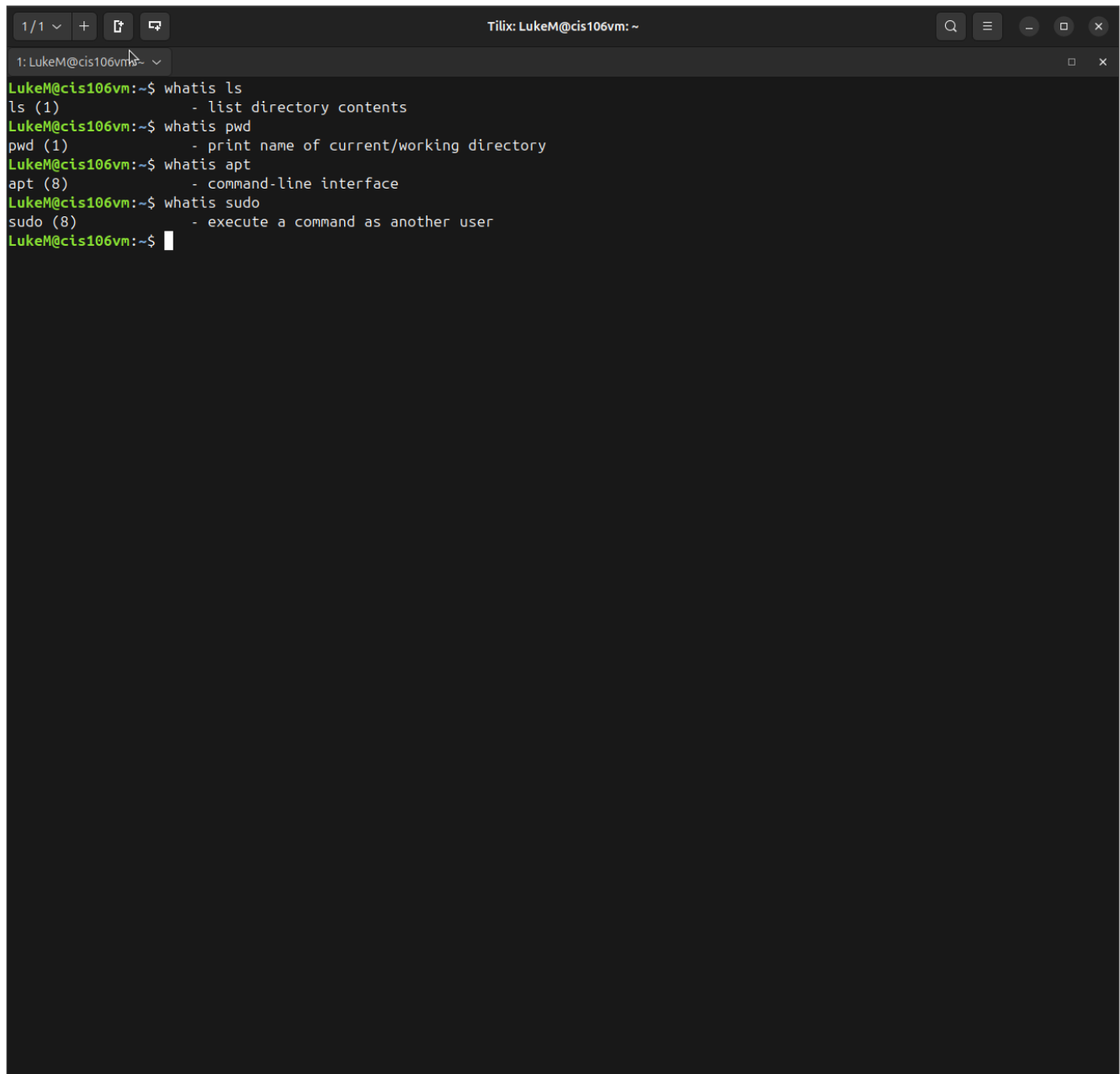
A terminal window with a dark purple background. The title bar at the top reads "LukeM@cis106vm: ~". The terminal shows a user prompt "LukeM@cis106vm:~\$" followed by the command "bash ~/scripts/hello.sh". The script outputs three lines: "Hello World", "I am learning Linux", and "This is my first shell script". The prompt returns to "LukeM@cis106vm:~\$".

```
LukeM@cis106vm:~$ bash ~/scripts/hello.sh
Hello World
I am learning Linux
This is my first shell script
LukeM@cis106vm:~$
```

## Practice 5



Practice 6

A terminal window titled "Tilix: LukeM@cis106vm: ~" with a tab labeled "1: LukeM@cis106vm". The terminal shows a series of "whatis" commands and their outputs. The commands are: "whatis ls", "whatis pwd", "whatis apt", and "whatis sudo". Each command is followed by its output, which includes the command name in parentheses and a brief description. The prompt "LukeM@cis106vm:~\$" is shown at the end of each line.

```
LukeM@cis106vm:~$ whatis ls
ls (1)                - list directory contents
LukeM@cis106vm:~$ whatis pwd
pwd (1)               - print name of current/working directory
LukeM@cis106vm:~$ whatis apt
apt (8)               - command-line interface
LukeM@cis106vm:~$ whatis sudo
sudo (8)              - execute a command as another user
LukeM@cis106vm:~$
```

## Practice 7

```
1:LukeM@cisl06vm:~$
LukeM@cisl06vm:~$ -s chest tar | pygmentize
# To extract an uncompressed archive:
tar xvf /path/to/foo.tar

# To extract a .tar to specified directory:
tar xvf /path/to/foo.tar -C /path/to/destination/

# To create an uncompressed archive:
tar cvf /path/to/foo.tar /path/to/foo/

# To extract a .tgz or .tar.gz archive:
tar xzvf /path/to/foo.tgz
tar xzvf /path/to/foo.tar.gz

# To create a .tgz or .tar.gz archive:
tar czvf /path/to/foo.tgz /path/to/foo/
tar czvf /path/to/foo.tar.gz /path/to/foo/

# To list the content of an .tgz or .tar.gz archive:
tar tzvf /path/to/foo.tgz
tar tzvf /path/to/foo.tar.gz

# To extract a .tar.bz2 archive:
tar xjvf /path/to/foo.tar.bz2

# To create a .tar.bz2 archive:
tar cjvf /path/to/foo.tar.bz2 /path/to/foo/

# To list the content of an .tar.bz2 archive:
tar tjvf /path/to/foo.tar.bz2

# To create a .tgz archive and exclude all jpg,gif,... from the tgz:
tar czvf /path/to/foo.tgz --exclude='*.jpg,gif,png,wmv,flv,tar,gz,zip' /path/to/foo/

# To use parallel (multi threaded) implementation of compression algorithms:
tar z --parallel tar | pigz ...
tar j --parallel tar | pbzip2 ...
tar -J --parallel tar | plxz ...

# To append a new file to an old tar archive:
tar rf <archive.tar> <new file to append>
LukeM@cisl06vm:~$
```

Practice 1 - Managing Software

```
1:LukeM@cisl06vm:~$
LukeM@cisl06vm:~$ apt search "tetr1s clone"
Sorting... Done
Full Text Search... Done
tetr1s/noble 0.43-7build1 amd64
  ncurses Tetr1s clone with a bastard algorithm
tetr1s/noble 1.2.8-1 amd64
  very polished Tetr1s clone with CPU opponents
tetr1s/noble 0.07 amd64
  Tetr1s clone for text based terminal
LukeM@cisl06vm:~$

1:LukeM@cisl06vm:~$ sudo apt install bastet
[hook] passed for lsbct
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libboost-program-options1.83.0
The following NEW packages will be installed:
  bastet libboost-program-options1.83.0
0 upgraded, 2 newly installed, 0 to remove and 25 not upgraded.
Need to get 396 kB of archives.
After this operation, 2,075 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us.archive.ubuntu.com/ubuntu noble-updates/main amd64 libboost-program-options1.83.0 amd64 1.83.0-2.1ubuntu1.1 [328 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu noble/universe amd64 bastet amd64 0.43-7build1 [75.1 kB]
Fetched 396 kB in 6s (2,376 kB/s)
Preconfiguring packages
Selecting previously unselected package libboost-program-options1.83.0-amd64.
(Reading database ... 10829 files and directories currently installed.)
Unpacking libboost-program-options1.83.0-amd64 (1.83.0-2.1ubuntu1.1) ...
Preparing to unpack .../libboost-program-options1.83.0-1.83.0-2.1ubuntu1.1-amd64.deb ...
Unpacking libboost-program-options1.83.0-amd64 (1.83.0-2.1ubuntu1.1) ...
Selecting previously unselected package bastet.
Preparing to unpack .../bastet_0.43-7build1_amd64.deb ...
Unpacking bastet (0.43-7build1) ...
Setting up libboost-program-options1.83.0-amd64 (1.83.0-2.1ubuntu1.1) ...
Setting up bastet (0.43-7build1) ...
Processing triggers for desktop-file-utils (0.27-2build1) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu1) ...
Processing triggers for libxkbcommon (2.13.0-1ubuntu1) ...
Processing triggers for man-db (2.12.0-4build1) ...
LukeM@cisl06vm:~$
LukeM@cisl06vm:~$ sudo apt remove bastet
[hook] passed for lsbct
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  libboost-program-options1.83.0
Use 'sudo apt autoremove' to remove it.
The following packages will be REMOVED:
  bastet
0 upgraded, 0 newly installed, 1 to remove and 25 not upgraded.
After this operation, 214 kB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 10829 files and directories currently installed.)
Removing bastet (0.43-7build1) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu1) ...
Processing triggers for man-db (2.12.0-4build1) ...
Processing triggers for desktop-file-utils (0.27-2build1) ...
LukeM@cisl06vm:~$ sudo apt purge bastet
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  libboost-program-options1.83.0
Use 'sudo apt autoremove' to remove it.
The following packages will be REMOVED:
  bastet
0 upgraded, 0 newly installed, 1 to remove and 25 not upgraded.
After this operation, 0 B of additional disk space will be used.
Do you want to continue? [Y/n] y
(Reading database ... 10825 files and directories currently installed.)
Purging configuration files for bastet (0.43-7build1) ...
LukeM@cisl06vm:~$
```

Practice 3 - Managing Software

[illegible]