# Assessment Tool

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| **Name:** |  | **Lab Section:** |  |

The exercise is divided into **four** parts. Make sure to answer and double-check all parts before submitting. The goal of this exercise is to explore the numerous shell commands apart from the commands and features discussed in the lab.

**Part 1. Basic Linux Commands**

Run the following commands and explain their usage (i.e. brief description of command, options used, operators, output). You may check their manual using the man command.

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| **#** | **Commands** | **Description** |
| 1 | passwd |  |
| 2 | date |  |
| 3 | hostname |  |
| 4 | arch |  |
| 5 | uname -a |  |
| 6 | uptime |  |
| 7 | whoami |  |
| 8 | who |  |
| 9 | last |  |
| 10 | w |  |
| 11 | top |  |
| 12 | man |  |
| 13 | wget https://file-examples-com.github.io/uploads/2017/02/file\_example\_CSV\_5000.csv |  |
| 14 | touch |  |
| 15 | history |  |
| 16 | clear |  |
| 17 | cal 2013 |  |
| 18 | cal 9 1752 |  |
| 19 | echo hello world |  |
| 20 | echo {con,pre}{sent,fer}{s,ed} |  |
| 21 | echo 9+4 |  |
| 22 | bc -l  9+4  quit |  |
| 23 | echo 9+4 | bc -l |  |
| 24 | yes please  *(press Ctrl+C to exit)* |  |
| 25 | sleep 6 |  |
| 26 | time sleep 6 |  |
| 27 | ifconfig |  |
| 28 | ps aux |  |
| 29 | man pwd > pwdman.txt |  |
| 30 | whereis gcc |  |
| 31 | printenv |  |
| 32 | less |  |
| 33 | more |  |
| 34 | tail |  |
| 35 | cat |  |
| 36 | tee |  |
| 37 | stat pwdman.txt |  |
| 38 | wc pwdman.txt |  |
| 39 | sort pwdman.txt |  |

**Part 2. File System**

Provide the commands needed to do the following instructions. Make sure to answer the following in order.

*Note: All instructions must be done in one command*

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| **#** | **Instruction** | **Command and Explanation** |
| 1 | Create a folder in the Desktop named **ayi**. |  |
| 2 | Go to the newly created folder. |  |
| 3 | Move the given file (**exer.tar.gz**) to the current directory. |  |
| 4 | Untar the file **exer.tar.gz**.  *(Explain the options you used)* |  |
| 5 | List all the files of the untarred directory. |  |
| 6 | Show the contents of the file **meow** in the terminal. |  |
| 7 | Copy the file **meow** to the current directory and name it **purr**. |  |
| 8 | Compile the C file named **loop.c**. |  |
| 9 | Run the program (do not exit). |  |
| 10 | Suspend the running program. |  |
| 11 | Put the program in the background. |  |
| 12 | Check the current jobs. |  |
| 13 | Terminate the program you ran in the background. |  |
| 14 | Create two directories named **pet** and **food** on the current directory. |  |
| 15 | Copy the file named **meow** to the directory **pet**. |  |
| 16 | Determine the file type of the file named **loop.c**. |  |
| 17 | Update the access timestamp of the file **me**. |  |
| 18 | Delete the directory named **food**. |  |
| 19 | Go to the Desktop directory. |  |
| 20 | Delete the directory named **ayi**. |  |

**Part 3. File Permissions and Ownership**

Provide the command needed for the following situations.

1. Trying to create a directory named $cmsc125 using the command mkdir $cmsc125 would result in a missing operand error. What should be used to create the directory named $cmsc125?

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1. Use the find command to display all files in your home directory that is greater than 1 kilobyte.

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1. Change the file permission of the file (given to you) named **script.sh** and run it (it should print Hello World).

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1. Using ls, how will you print all the files in your current directory including all the files in its subdirectories?

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1. If you use ls -l in any directory, it would print something similar to the output below:

-rw-rw-r-- 1 user user 0 Feb 9 14:52 file.txt

* 1. What does each column represent?

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* 1. Explain the meaning of -rw-rw-r--.

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**Part 4. Basic System Administration Tasks**

Provide the commands needed to do the following instructions.

1. Some commands in Linux cannot be done unless you are using the terminal as the root user. From the current user account, how will you become the root user?

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1. Once you are the root user, add another user account named <yourinitials>.

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1. Switch (or login) to the newly created account.

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1. Change the password of the newly created account.

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1. Remove the newly created user account.

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