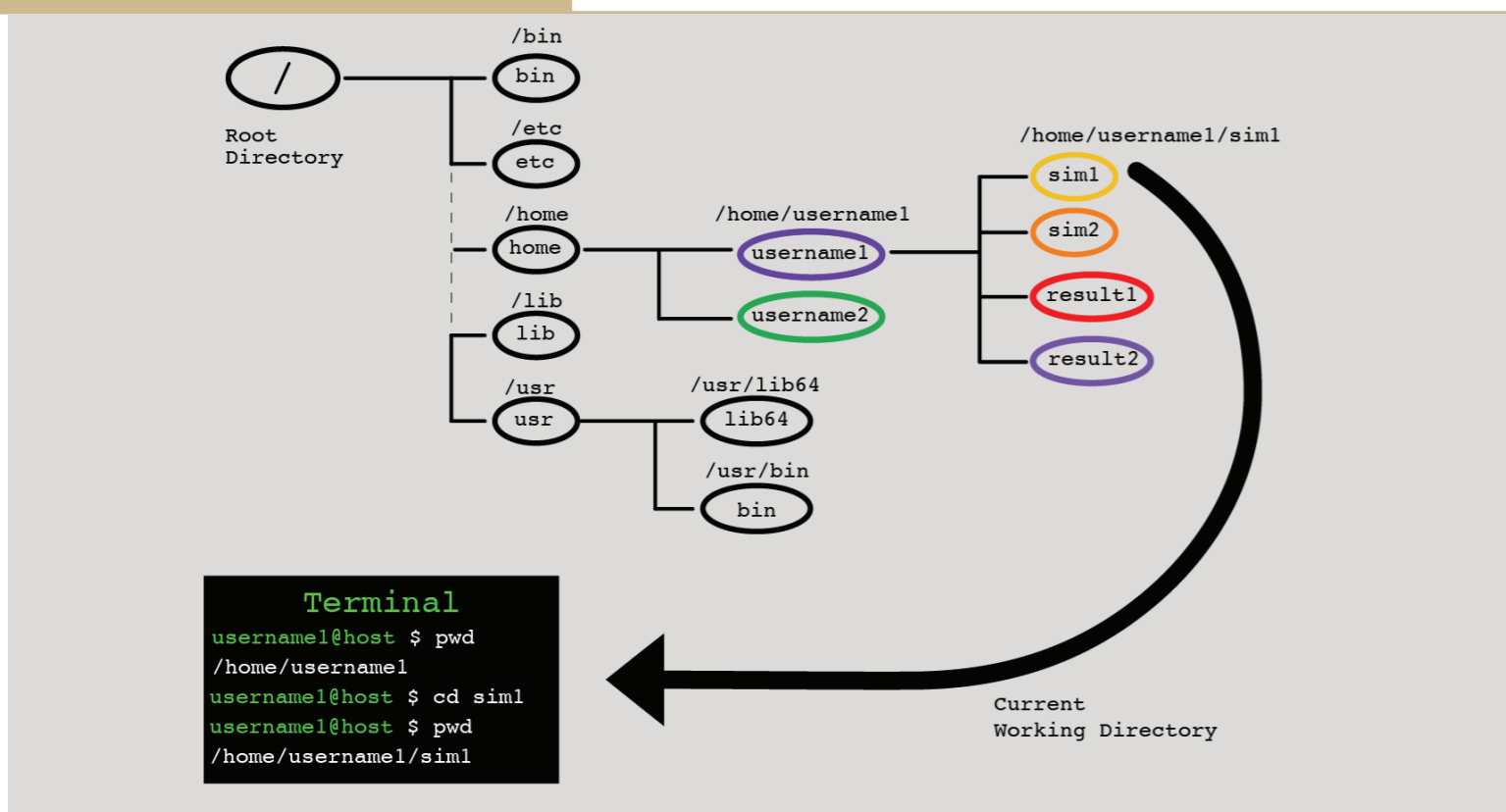


# Linux

## Quick Reference Card

### Directories and Files in Linux



Example files and directories in the Linux operating system. Each circle in the figure shows a directory and its corresponding path displayed above it. To navigate to a specific directory, you need to know which directory you are currently in and the path to the target directory. The commands in the terminal show how a user can navigate to a directory `"/home/username1/sim1"` starting from her home directory.

### Working with Files on Linux

<code>ls</code>	List all files and subdirectories.
<code>pwd</code>	Show the current directory.
<code>cd <u>mydir</u></code>	Change the current directory to <u>mydir</u> .
<code>mkdir <u>mydir</u></code>	Create a directory named <u>mydir</u> .
<code>rmdir <u>mydir</u></code>	Remove the empty directory <u>mydir</u> .
<code>cp <u>myfile1</u> <u>myfile2</u></code>	Copy the file <u>myfile1</u> to <u>myfile2</u> .
<code>mv <u>myfile1</u> <u>myfile2</u></code>	Rename the file <u>myfile1</u> to <u>myfile2</u> .
<code>mv <u>myfile</u> <u>mydir</u></code>	Move the file <u>myfile</u> into <u>mydir</u> .
<code>rm <u>myfile</u></code>	Delete the file <u>myfile</u> .
<code>cat <u>myfile</u></code>	Display the entire contents of the file <u>myfile</u> .
<code>more <u>myfile</u></code>	Display the contents of the file <u>myfile</u> , one page at a time.
<code>geany <u>myfile</u></code>	Edit the file <u>myfile</u> with a simple text editor.
<code>.</code>	Shorthand for your current directory.
<code>..</code>	Shorthand for your current directory's parent directory.

\*Underlined words should be replaced with their actual values when running a command, e.g., 'myfile' should be replaced with your file name.

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### Other Useful Linux Commands

<code>hostname</code>	Display the name of the system you are currently logged in to.
<code>ps -u <u>myusername</u></code>	List all programs you are currently running on your login host.
<code>du -sh <u>mydir</u></code>	Report disk space used by the directory <u>mydir</u> and all its contents.
<code>grep "<u>mytext</u>" <u>myfile</u></code>	Search for the text " <u>mytext</u> " in the file <u>myfile</u> .
<code>head <u>myfile</u></code>	Display the first ten lines of the file <u>myfile</u> .
<code>tail <u>myfile</u></code>	Display the last ten lines of the file <u>myfile</u> .
<code>scp <u>myfile</u> <u>myhost</u>:<u>mydir</u></code>	Copy <u>myfile</u> to the directory <u>mydir</u> on the remote system <u>myhost</u> .
<code>diff <u>myfile1</u> <u>myfile2</u></code>	Compare the text files <u>myfile1</u> and <u>myfile2</u> and display the lines that differ.
<code>history</code>	Display the previous commands that were run in the terminal.
<code>man <u>mycommand</u></code>	Display the manual page for the command <u>mycommand</u> .
<code>man -k <u>myword</u></code>	List all commands whose manual pages include the word " <u>myword</u> ".
<code>exit</code>	Log out of your current session.

### Output Redirection

<code><u>mycmd1</u> &gt; <u>myoutput.txt</u></code>	Save the output from running the command <u>mycmd1</u> to the file <u>myoutput.txt</u> .
<code><u>mycmd1</u> &gt;&gt; <u>myoutput.txt</u></code>	Append the output from the command <u>mycmd1</u> to the file <u>myoutput.txt</u> . Note that the previous command overwrites the file <u>myoutput.txt</u> , whereas, this command adds the output to the end of the file.
<code><u>mycmd1</u> &gt; <u>myoutput.txt</u> 2&gt; <u>myerror.txt</u></code>	Save the output of the command <u>mycmd1</u> to the file <u>myoutput.txt</u> and save any error messages to the file <u>myerror.txt</u> .
<code><u>mycmd1</u>   <u>mycmd2</u></code>	Send the output of command <u>mycmd1</u> to <u>mycmd2</u> as input ("pipe"). Pipes can be used to send output of one program as input to another program without creating a temporary file.
<code><u>head -n 20</u> <u>myfile1</u>   <u>tail -n 10</u></code>	The first part of the command prints the first 20 lines from the file <u>myfile1</u> which is then passed to the second part of the command. The second part ( <u>tail -n 10</u> ) prints the last 10 lines of its input. Effectively, the entire command prints lines 11-20 from the file <u>myfile1</u> .

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