

Shell and Unix commands covered in CS208

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Below is a list of the most common Unix/Linux commands, their syntax and a short description. Optional arguments and options are enclosed by '[' and ']', *dir* denotes a name of a directory and *file* denotes a name of a file which is not a directory.

This is not a complete list of commands and neither of all options of the listed commands. For more information look at the manual pages.

| command | description |
|--|---|
| <code>man <i>command_name</i></code> | show the manual page for <i>command_name</i> |
| <code>pwd</code> | print (current) working directory |
| <code>ls [-a] [-l] [<i>dir</i>]</code> | list contents of <i>dir</i> or, without argument, of working directory; includes all files with <code>-a</code> and <code>-l</code> yields a long listing |
| <code>cd [<i>dir</i>]</code> | change directory to <i>dir</i> or, without argument, to <code>~/</code> |
| <code>mkdir <i>dir</i></code> | make new directory named <i>dir</i> |
| <code>mkfifo <i>pipe</i></code> | creates a special file <i>pipe</i> which acts as fifo |
| <code>rmdir <i>dir</i></code> | remove/delete <i>dir</i> ; only works if <i>dir</i> is empty |
| <code>cp <i>file1 file2</i></code> | make <i>file2</i> a copy of <i>file1</i> |
| <code>cp <i>file dir</i></code> | make <i>dir/file</i> a copy of <i>file</i> |
| <code>mv <i>file1 file2</i></code> | rename <i>file1</i> into <i>file2</i> ; works on directories |
| <code>mv <i>file dir</i></code> | move <i>file</i> to <i>dir/file</i> |
| <code>rm <i>file</i></code> | removes <i>file</i> ; !! USE WITH CARE !! |
| <code>ln -s <i>target link</i></code> | creates <i>link</i> which points to <i>target</i> |
| <code>chmod <i>ogw file</i></code> | sets permission on <i>file</i> for <u>o</u> wner, <u>g</u> roup and <u>w</u> orld, each being the sum of read(4), write(2), execute(1), if wanted |
| <code>cat [<i>file</i>]</code> | read stdin or <i>file</i> if given and print it to stdout |
| <code>less <i>file</i></code> | print contents of <i>file</i> to stdout for browsing |
| <code>echo <i>string</i></code> | prints <i>string</i> to stdout after doing shell substitution |
| <code>locate <i>pattern</i></code> | finds all absolute filenames which involve <i>pattern</i> |
| <code>grep [-v] <i>pattern file</i></code> | prints all lines in <i>file</i> which do (not if <code>-v</code>) contain <i>pattern</i> |
| <code>sort [-n] [<i>file</i>]</code> | sorts the lines of <i>file</i> , or stdin, alphabetically or numerically, if <code>-n</code> option is given |
| <code>top</code> | show dynamic table of processes |
| <code>jobs</code> | show jobs started from the shell in the background |
| <code>ps [-u <i>user_name</i>]</code> | show processes controlled by this shell, or for user with <i>user_name</i> if given |
| <code>env</code> | prints environment variables |
| <code>who</code> | prints information on who is logged in |
| <code>users</code> | prints usernames of those who are logged in |
| <code>whoami</code> | prints your username to |
| I/O redirection | |
| <code><i>cmd</i> > <i>file</i></code> | redirect the stdout of <i>cmd</i> into <i>file</i> ; !!OVERWRITES!! |
| <code><i>cmd</i> >> <i>file</i></code> | redirect the stdout of <i>cmd</i> into <i>file</i> for appending |
| <code><i>cmd</i> < <i>file</i></code> | connect stdin of <i>cmd</i> to <i>file</i> |
| <code><i>cmd1</i> <i>cmd2</i></code> | connect stdout of <i>cmd1</i> with stdin of <i>cmd2</i> |

Use Ctrl-c to cancel/kill a running program; NOT Ctrl-z.