

# Linux Command Checklist

## I. Directory Navigation & Structure

Command	Description
<code>cd &lt;pathname&gt;</code>	Change Directory to the specified path.
/	Represents the <b>root directory</b> .
~	Represents the <b>home directory</b> for the current user.
.	Represents the <b>current directory</b> .
..	Represents the <b>parent directory</b> .

## II. File & Directory Manipulation

### A. Listing Contents

Command	Description
<code>ls &lt;directory&gt;</code>	Lists the contents of a directory.
<code>ls</code>	Lists the <b>current working directory</b> .
<code>ls -l</code>	Lists contents in <b>long format</b> .
<code>ls -a</code>	Lists <b>all files</b> , including <b>hidden files</b> (starting with a dot).
<code>ls -la</code> or <code>ls -l -a</code>	Combines options: long format and all files.

### B. Creation & Deletion

Command	Description
<code>touch &lt;file&gt;</code>	Creates an <b>empty</b> file.
<code>mkdir &lt;dir&gt;</code>	Creates a directory.
<code>rm &lt;file1&gt; &lt;file2&gt;</code>	Deletes files.
<code>rmdir &lt;dir&gt;</code>	Deletes an <b>empty</b> directory.

Command	Description
<code>rm -r &lt;dir&gt;</code>	Deletes a directory <b>along with its contents</b> .

## C. Copying & Moving/Renaming

Command	Description
<code>cp &lt;file1&gt; &lt;file2&gt;</code>	Copies content of <code>file1</code> into <code>file2</code> .
<code>cp &lt;file1&gt; &lt;dir&gt;</code>	Copies a file into a directory.
<code>cp -r &lt;dir1&gt; &lt;dir2&gt;</code>	If <code>dir2</code> doesn't exist, copy <code>dir1</code> as <code>dir2</code> . Otherwise, copy <code>dir1</code> <b>inside</b> <code>dir2</code> .
<code>mv &lt;file1&gt; &lt;file2&gt;</code>	Renames <code>file1</code> as <code>file2</code> .
<code>mv &lt;file&gt; &lt;dir&gt;</code>	Moves a file into a directory.
<code>mv &lt;dir1&gt; &lt;dir2&gt;</code>	If <code>dir2</code> doesn't exist, rename <code>dir1</code> as <code>dir2</code> . Otherwise, move <code>dir1</code> <b>inside</b> <code>dir2</code> .

## III. Viewing & Editing File Content

Command	Description
<code>nano &lt;file&gt;</code>	Edits a file (simple editor).
<code>gedit &lt;file&gt;</code>	Edits a file (GUI editor).
<code>cat &lt;file&gt;</code>	Shows the <b>entire file content</b> to standard output.
<code>less &lt;file&gt;</code>	Shows file content page-by-page.

## IV. I/O Redirection

Symbol	Description
<code>&gt;</code>	Redirects <b>Standard Output</b> to a file. E.g., <code>ls -l &gt; ls_rst.txt</code> .
<code>&lt;</code>	Redirects <b>Standard Input</b> from a file. E.g., <code>my_program &lt; input.txt</code> .

## V. Other Commands & Features

Command/Feature	Description
*	Wildcard. Represents <b>any character string</b> (including an empty string).
<code>diff &lt;file1&gt; &lt;file2&gt;</code>	Compares two files for differences. Add <code>-w</code> to ignore white spaces (space, tab).
<code>sudo apt-get install &lt;program&gt;</code>	Installs a program. <code>sudo</code> executes the command as a <b>superuser</b> (requires a password).
<code>sudo apt-get autoremove &lt;program&gt;</code>	Removes a program.
<code>man &lt;command&gt;</code>	Shows the command's <b>manual page</b> for help.

## VI. Extension: Useful Commands

Command/Feature	Description
<code>pwd</code>	Prints the <b>working directory</b> (shows your current location).
<code>&lt;command&gt; --help</code> or <code>&lt;command&gt; -h</code>	Displays a brief summary and list of common options for a specific command.
<code>clear</code>	Clears the terminal screen, moving all previous output out of sight.
<code>history</code>	Displays a list of previously executed commands.
<code>whoami</code>	Displays your current effective username.
<code>echo &lt;text&gt;</code>	Prints the specified text to the standard output (the terminal).