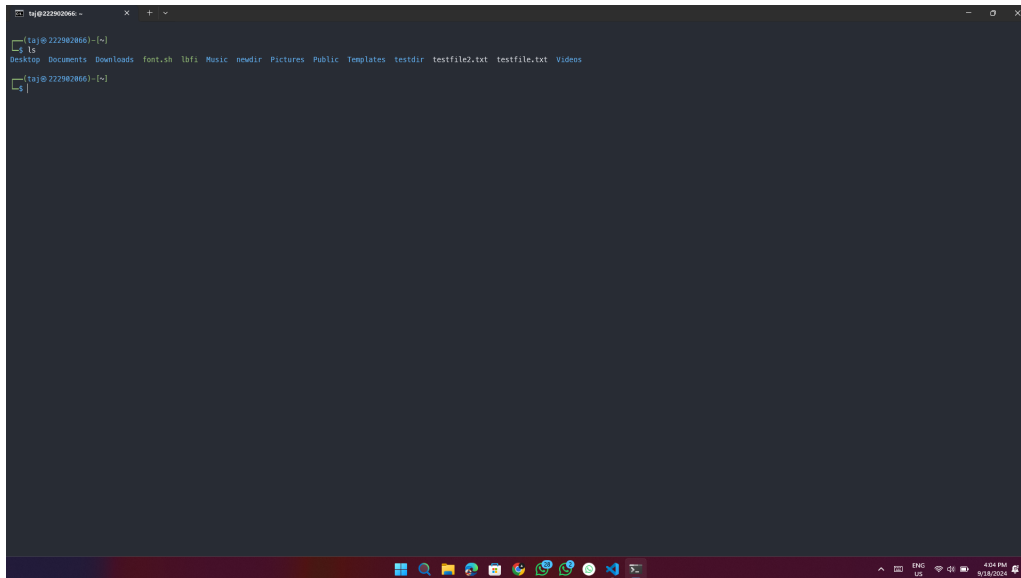


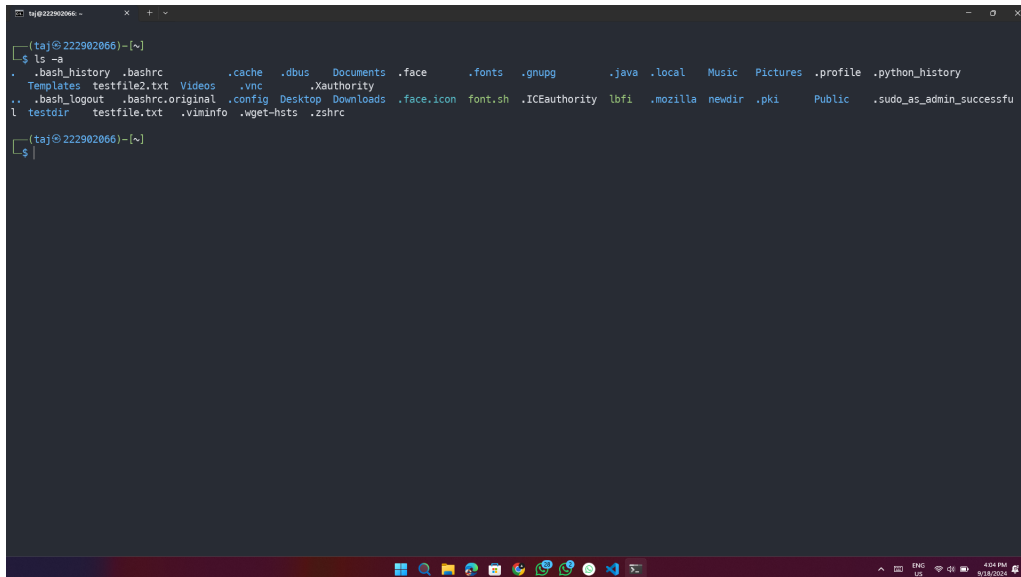
ls - Lists files and directories in the current directory.



```
(taj@222902066)~$ ls
ls
Desktop  Documents  Downloads  font.sh  lbfi  Music  newdir  Pictures  Public  Templates  testdir  testfile2.txt  testfile.txt  Videos

(taj@222902066)~$
```

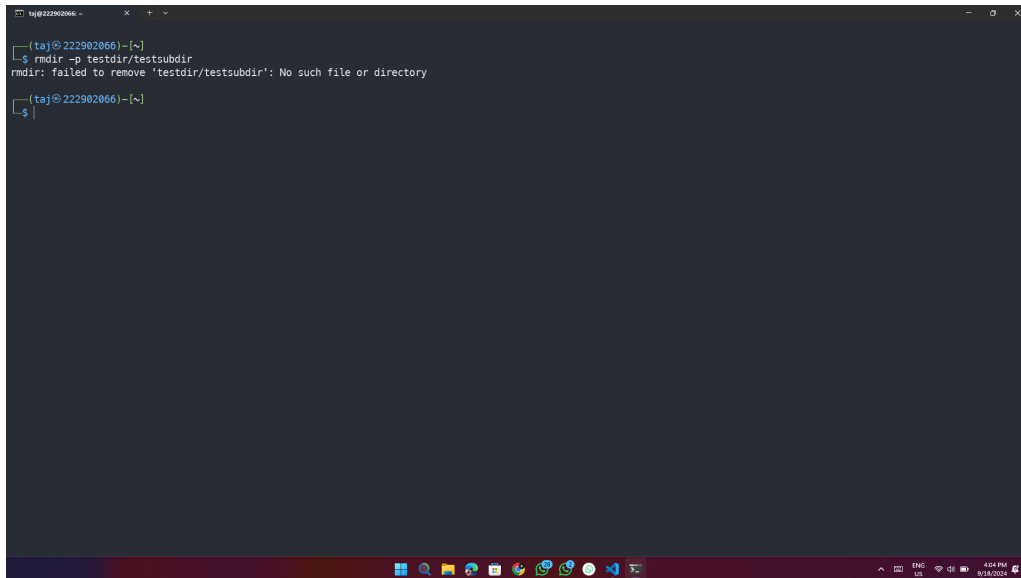
pwd - Displays the current working directory path.



```
(taj@222902066)~$ ls -la
total 128
drwxr-xr-x 1 taj taj 4096 Nov 19 14:22 .
drwxr-xr-x 1 taj taj 4096 Nov 19 14:22 ..
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .bash_history
-rw-r--r-- 1 taj taj  176 Nov 19 14:22 .bashrc
-rw-r--r-- 1 taj taj  220 Nov 19 14:22 .cache
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .dbus
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Documents
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .face
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .fonts
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .gnupg
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .java
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .local
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Music
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Pictures
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .profile
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .python_history
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Templates
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .testfile2.txt
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Videos
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .vnc
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Xauthority
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .bash_logout
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .bashrc.original
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .config
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Desktop
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Downloads
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .face.icon
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .font.sh
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .ICEauthority
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .lbfi
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .mozilla
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .newdir
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .pki
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .Public
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .sudo_as_admin_successful
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .testdir
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .testfile.txt
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .viminfo
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .wget-hsts
-rw-r--r-- 1 taj taj  121 Nov 19 14:22 .zshrc

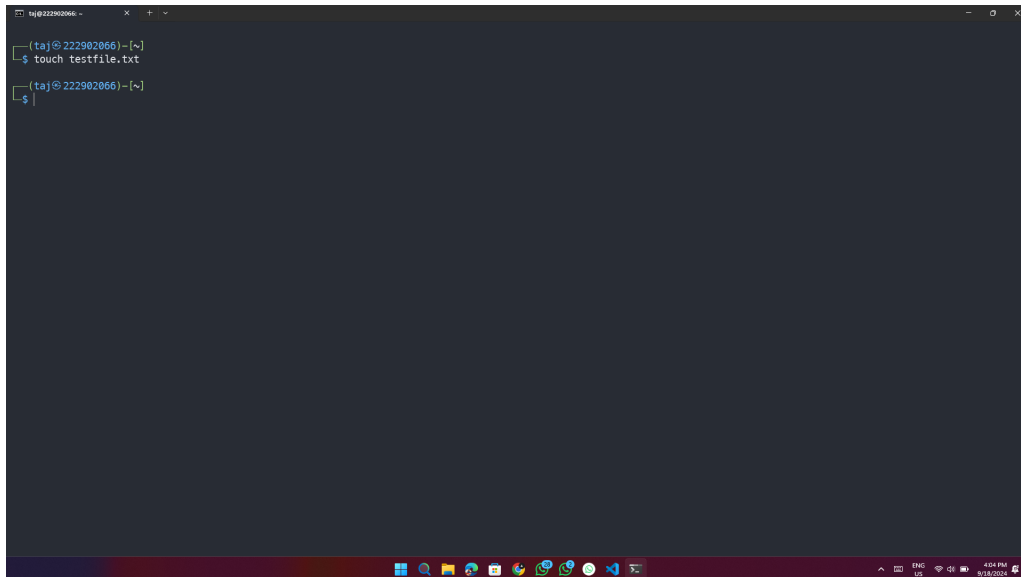
(taj@222902066)~$
```

lscpu - Shows detailed CPU architecture information.

A terminal window titled 'taj@222902066 ~' with a dark background. The prompt is '(taj@222902066)~'. The user enters '\$ rmdir -p testdir/testsubdir'. The output is 'rmdir: failed to remove 'testdir/testsubdir': No such file or directory'. The prompt returns to '\$'. The terminal has a standard Linux desktop environment at the bottom with a taskbar and system tray.

```
(taj@222902066)~  
$ rmdir -p testdir/testsubdir  
rmdir: failed to remove 'testdir/testsubdir': No such file or directory  
(taj@222902066)~  
$
```

lsmem - Displays memory information of the system.

A terminal window titled 'taj@222902066 ~' with a dark background. The prompt is '(taj@222902066)~'. The user enters '\$ touch testfile.txt'. The output is empty. The prompt returns to '\$'. The terminal has a standard Linux desktop environment at the bottom with a taskbar and system tray.

```
(taj@222902066)~  
$ touch testfile.txt  
(taj@222902066)~  
$
```

mkdir testdir - Creates a new directory named 'testdir'.

```
(taj@222902066)~  
$ ls -l  
total 6700  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Desktop  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Documents  
drwxr-xr-x 3 taj taj 4096 Sep 9 11:53 Downloads  
-rwxr-xr-x 1 taj taj 4169 Sep 9 00:30 font.sh  
-rwxr-xr-x 1 taj taj 6807176 Sep 9 00:33 lbfi  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Music  
drwxr-xr-x 2 taj taj 4096 Sep 18 14:20 newdir  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Pictures  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Public  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Templates  
drwxr-xr-x 2 taj taj 4096 Sep 18 14:20 testdir  
-rw-r--r-- 1 taj taj 13 Sep 14 15:45 testfile2.txt  
-rw-r--r-- 1 taj taj 0 Sep 18 14:20 testfile.txt  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Videos  
  
(taj@222902066)~  
$
```

cd testdir - Changes the current directory to 'testdir'.

```
(taj@222902066)~  
$ ls -lh  
total 6.0M  
drwxr-xr-x 2 taj taj 4.0K Sep 7 21:50 Desktop  
drwxr-xr-x 2 taj taj 4.0K Sep 7 21:50 Documents  
drwxr-xr-x 3 taj taj 4.0K Sep 9 11:53 Downloads  
-rwxr-xr-x 1 taj taj 4.1K Sep 9 00:30 font.sh  
-rwxr-xr-x 1 taj taj 6.5M Sep 9 00:33 lbfi  
drwxr-xr-x 2 taj taj 4.0K Sep 7 21:50 Music  
drwxr-xr-x 2 taj taj 4.0K Sep 18 14:20 newdir  
drwxr-xr-x 2 taj taj 4.0K Sep 7 21:50 Pictures  
drwxr-xr-x 2 taj taj 4.0K Sep 7 21:50 Public  
drwxr-xr-x 2 taj taj 4.0K Sep 7 21:50 Templates  
drwxr-xr-x 2 taj taj 4.0K Sep 18 14:20 testdir  
-rw-r--r-- 1 taj taj 13 Sep 14 15:45 testfile2.txt  
-rw-r--r-- 1 taj taj 0 Sep 18 14:20 testfile.txt  
drwxr-xr-x 2 taj taj 4.0K Sep 7 21:50 Videos  
  
(taj@222902066)~  
$
```

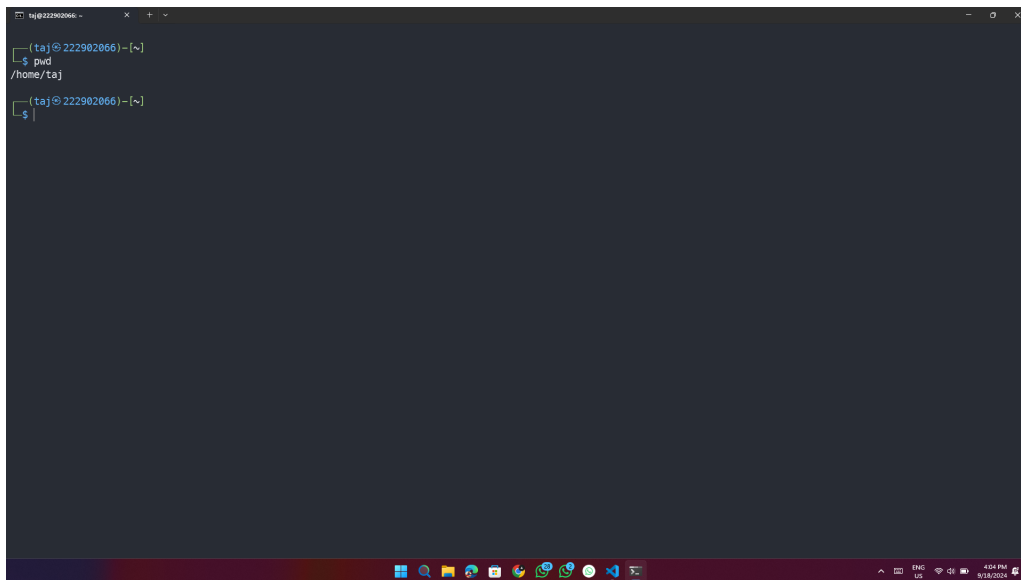
cd .. - Moves to the parent directory.

```
(taj@222902066)~  
$ ls -R  
.:  
Desktop Documents Downloads font.sh lbfi Music newdir Pictures Public Templates testdir testfile2.txt testfile.txt Videos  
./Desktop:  
./Documents:  
./Downloads:  
cse310 google-chrome-stable_current_and64.deb  
./Downloads/cse310:  
lab1  
./Downloads/cse310/lab1:  
add.sh a.txt b.png c.mp3 d.doc e f g h  
./Music:  
./newdir:  
./Pictures:  
./Public:  
./Templates:  
./testdir:  
./Videos:  
(taj@222902066)~  
$
```

rmdir testdir - Removes the empty directory 'testdir'.

```
(taj@222902066)~  
$ ls -ltr  
total 6700  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Videos  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Templates  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Public  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Pictures  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Music  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Documents  
drwxr-xr-x 2 taj taj 4096 Sep 7 21:50 Desktop  
-rwxr-xr-x 1 taj taj 4169 Sep 9 00:30 font.sh  
-rwxr-xr-x 1 taj taj 680776 Sep 9 00:33 lbfi  
drwxr-xr-x 3 taj taj 4096 Sep 9 11:53 Downloads  
-rw-r--r-- 1 taj taj 13 Sep 14 15:45 testfile2.txt  
drwxr-xr-x 2 taj taj 4096 Sep 18 14:20 newdir  
drwxr-xr-x 2 taj taj 4096 Sep 18 14:20 testdir  
-rw-r--r-- 1 taj taj 0 Sep 18 14:20 testfile.txt  
(taj@222902066)~  
$
```

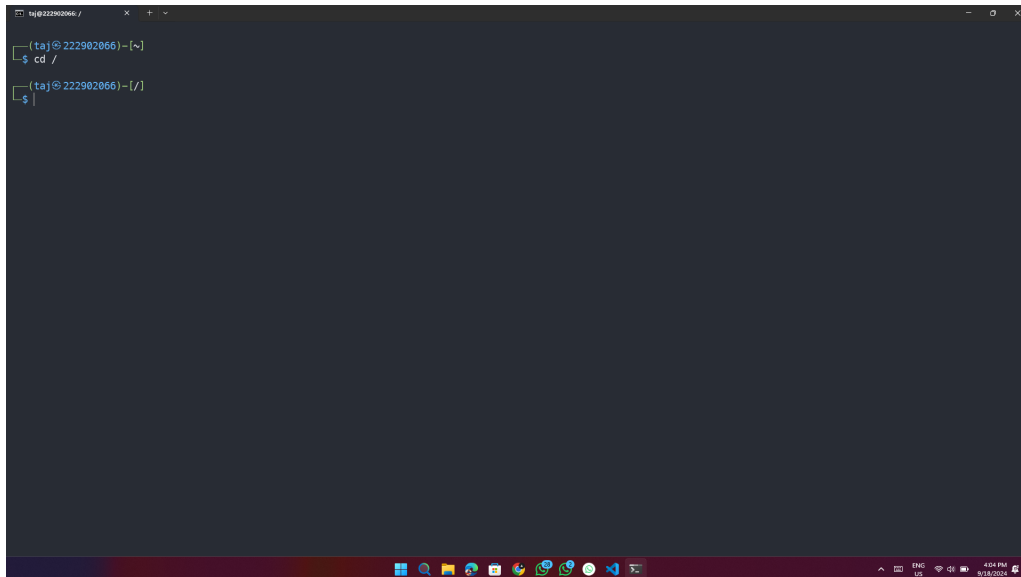
`touch testfile.txt` - Creates an empty file named 'testfile.txt'.



```
ta@222902066: ~  
$ touch testfile.txt  
$
```

A terminal window titled 'ta@222902066: ~' showing the execution of the `touch testfile.txt` command. The prompt is `$`, and the command is entered on the next line. The prompt returns to `$` on the following line. The terminal has a dark background and a light-colored prompt. The window title bar shows standard Linux window controls.

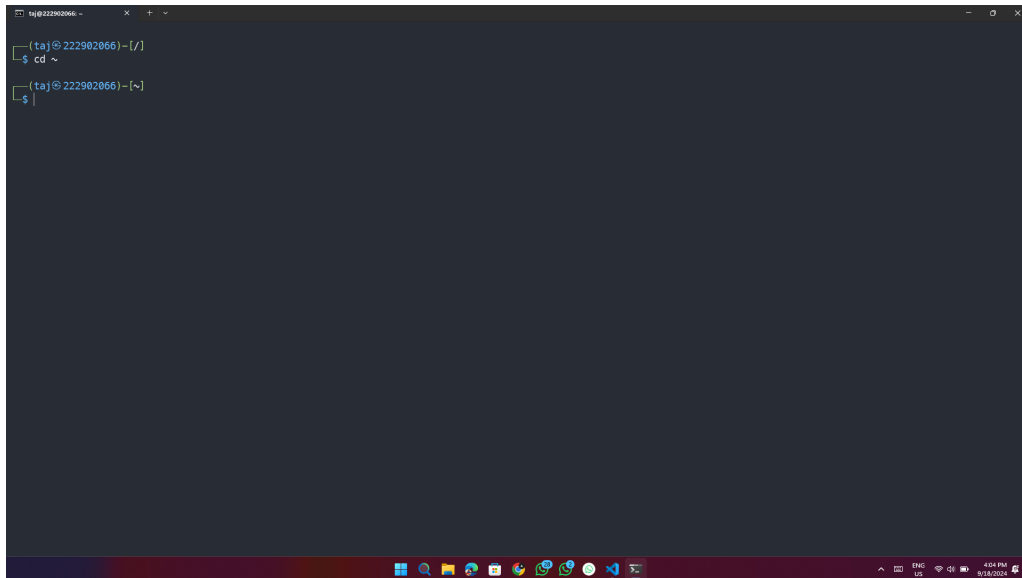
`echo "Hello World!" > testfile.txt` - Writes "Hello World!" into 'testfile.txt'.



```
ta@222902066: /  
$ cd /  
ta@222902066: /  
$
```

A terminal window titled 'ta@222902066: /' showing the execution of the `echo "Hello World!" > testfile.txt` command. The prompt is `$`, and the command is entered on the next line. The prompt returns to `$` on the following line. The terminal has a dark background and a light-colored prompt. The window title bar shows standard Linux window controls.

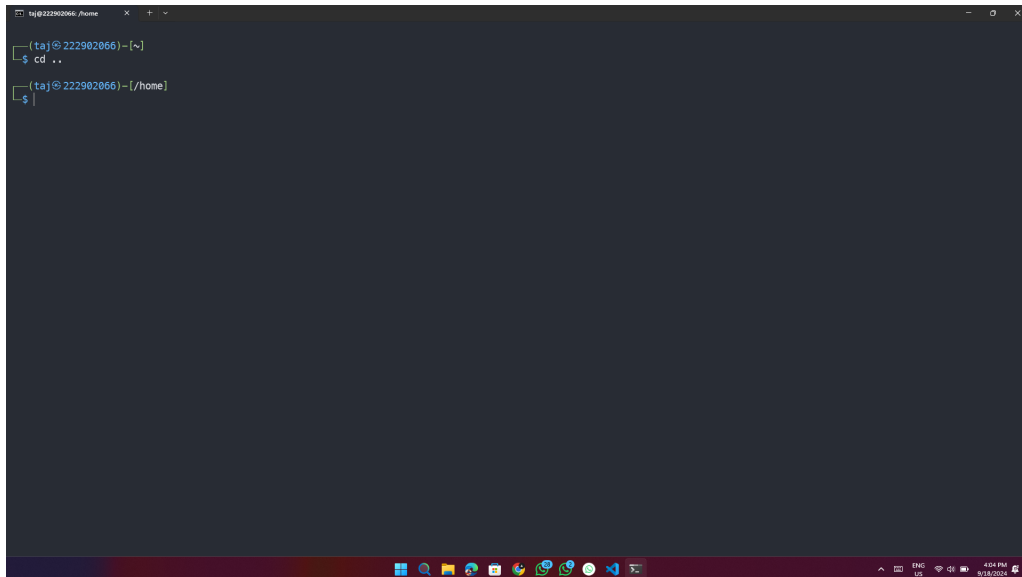
cat testfile.txt - Displays the contents of 'testfile.txt'.



```
ta@222902066: ~  
$ cd ~  
ta@222902066: ~  
$
```

A terminal window titled 'ta@222902066: ~' with a dark background. The prompt is '\$'. The first command is 'cd ~', which changes the directory to the home directory. The second prompt is '\$', indicating the command was executed successfully. The window has a standard Linux desktop environment with a taskbar at the bottom showing various application icons and system status indicators.

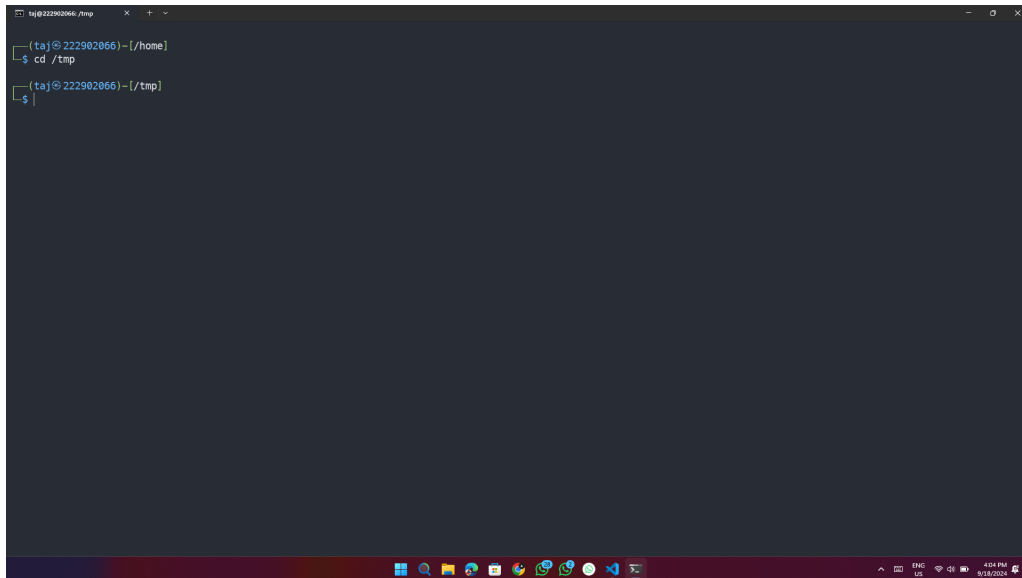
mv testfile.txt testfile2.txt - Renames or moves 'testfile.txt' to 'testfile2.txt'.



```
ta@222902066: ~  
$ cd ..  
ta@222902066: ~/home  
$
```

A terminal window titled 'ta@222902066: ~' with a dark background. The prompt is '\$'. The first command is 'cd ..', which changes the directory to the parent directory. The second prompt is '\$', indicating the command was executed successfully. The window has a standard Linux desktop environment with a taskbar at the bottom showing various application icons and system status indicators.

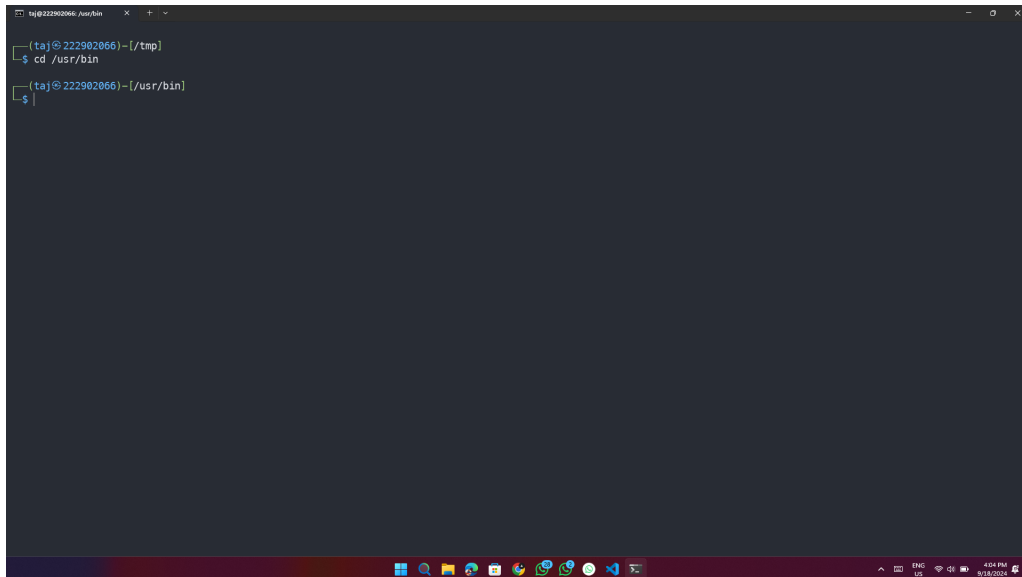
cp testfile2.txt testfile3.txt - Copies 'testfile2.txt' to 'testfile3.txt'.



```
ta@222902066: /tmp$  
ta@222902066: /home$  
$ cd /tmp  
ta@222902066: /tmp$
```

A terminal window titled 'ta@222902066: /tmp' showing the user navigating from the home directory to the /tmp directory using the 'cd' command. The terminal has a dark background with a light-colored prompt and output text. The system tray at the bottom shows the date and time as 'THU 10 4:04 PM 5/13/2021'.

rm testfile3.txt - Removes (deletes) 'testfile3.txt'.



```
ta@222902066: /usr/bin$  
ta@222902066: /tmp$  
$ cd /usr/bin  
ta@222902066: /usr/bin$
```

A terminal window titled 'ta@222902066: /usr/bin' showing the user navigating from the /tmp directory to the /usr/bin directory using the 'cd' command. The terminal has a dark background with a light-colored prompt and output text. The system tray at the bottom shows the date and time as 'THU 10 4:04 PM 5/13/2021'.

ifconfig - Displays network interface configuration (deprecated, use 'ip').

```
(ta)@222902066:~[/usr/bin]
$ cd -P
(ta)@222902066:~[~]
$
```

ip - Shows or manages IP addresses and network interfaces.

```
(ta)@222902066:~[~]
$ cd --help
cd: cd [-L|[-P [-e]] [-q]] [dir]
Change the shell working directory.

Change the current directory to DIR. The default DIR is the value of the
HOME shell variable. If DIR is "-", it is converted to $OLDPWD.

The variable CDPATH defines the search path for the directory containing
DIR. Alternative directory names in CDPATH are separated by a colon (:).
A null directory name is the same as the current directory. If DIR begins
with a slash (/), then CDPATH is not used.

If the directory is not found, and the shell option 'cdable_vars' is set,
the word is assumed to be a variable name. If that variable has a value,
its value is used for DIR.

Options:
-L      force symbolic links to be followed: resolve symbolic
        links in DIR after processing instances of '..'
-P      use the physical directory structure without following
        symbolic links: resolve symbolic links in DIR before
        processing instances of '..'
-e      if the -P option is supplied, and the current working
        directory cannot be determined successfully, exit with
        a non-zero status
-Q      on systems that support it, present a file with extended
        attributes as a directory containing the file attributes

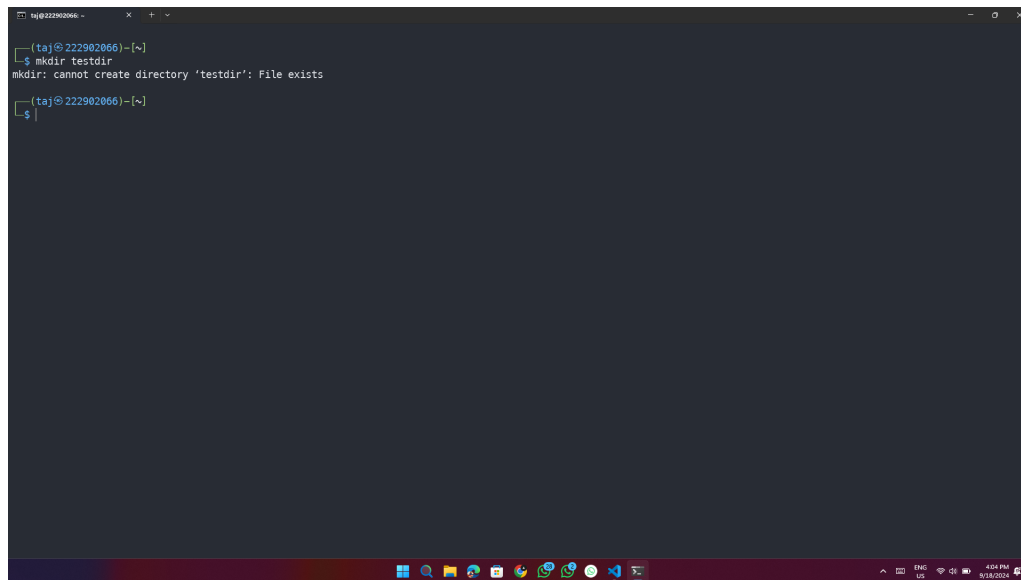
The default is to follow symbolic links, as if '-L' were specified.
'..' is processed by removing the immediately previous pathname component
back to a slash or the beginning of DIR.

Exit Status:
Returns 0 if the directory is changed, and if $PWD is set successfully when
-P is used; non-zero otherwise.

(ta)@222902066:~[~]
```

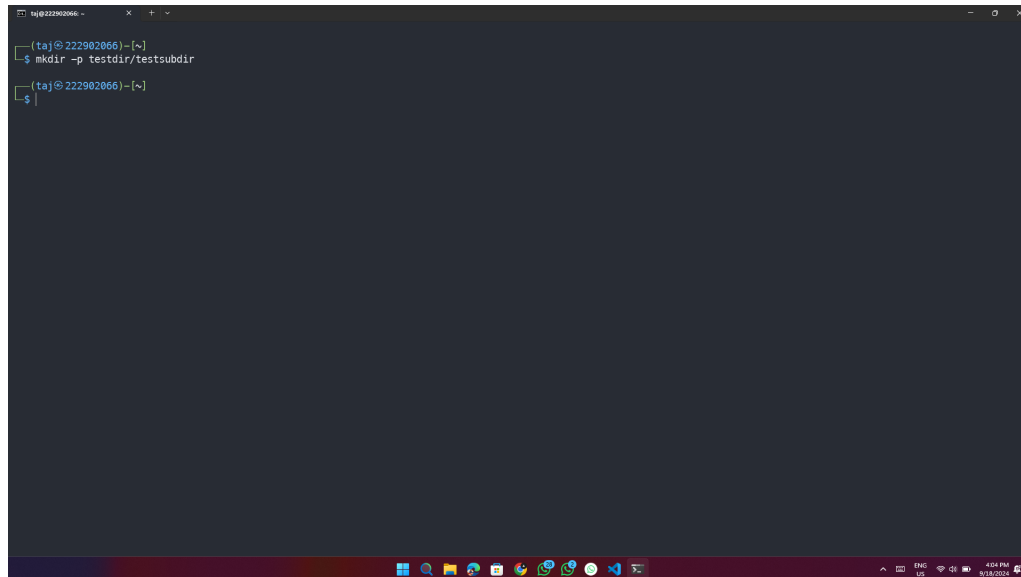


hostname - Displays or sets the system's hostname.

A terminal window titled 'taj@222902066' with standard window controls. The prompt is '(taj@222902066)-[~]'. The user enters '\$ mkdir testdir'. The output is 'mkdir: cannot create directory 'testdir': File exists'. The prompt returns to '(taj@222902066)-[~]'. The terminal has a dark background and a taskbar at the bottom with various application icons and system status indicators on the right.

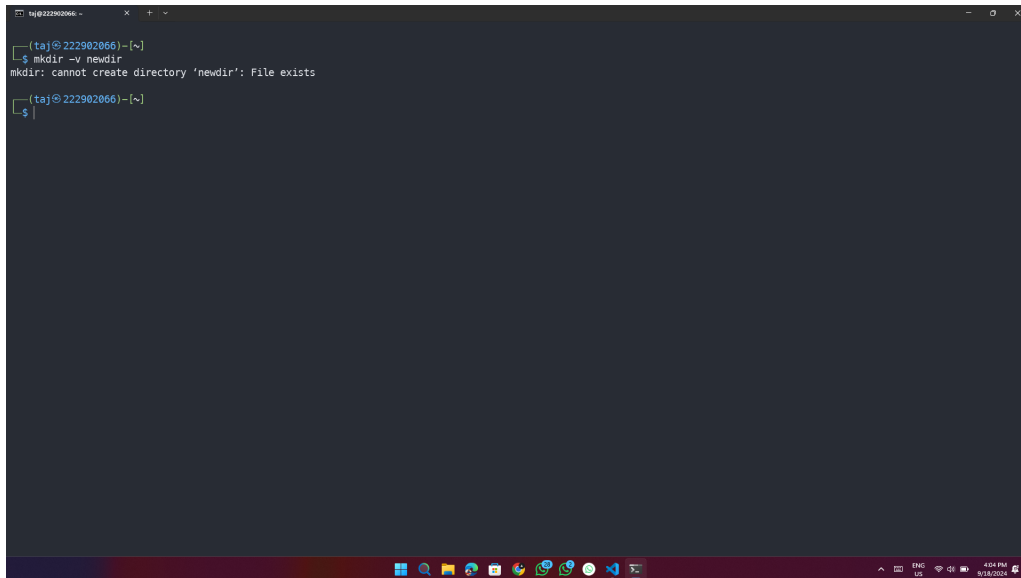
```
(taj@222902066)-[~]  
$ mkdir testdir  
mkdir: cannot create directory 'testdir': File exists  
(taj@222902066)-[~]  
$
```

whoami - Displays the current user's username.

A terminal window titled 'taj@222902066' with standard window controls. The prompt is '(taj@222902066)-[~]'. The user enters '\$ mkdir -p testdir/testsubdir'. The prompt returns to '(taj@222902066)-[~]'. The user then enters '\$ whoami'. The output is 'taj'. The terminal has a dark background and a taskbar at the bottom with various application icons and system status indicators on the right.

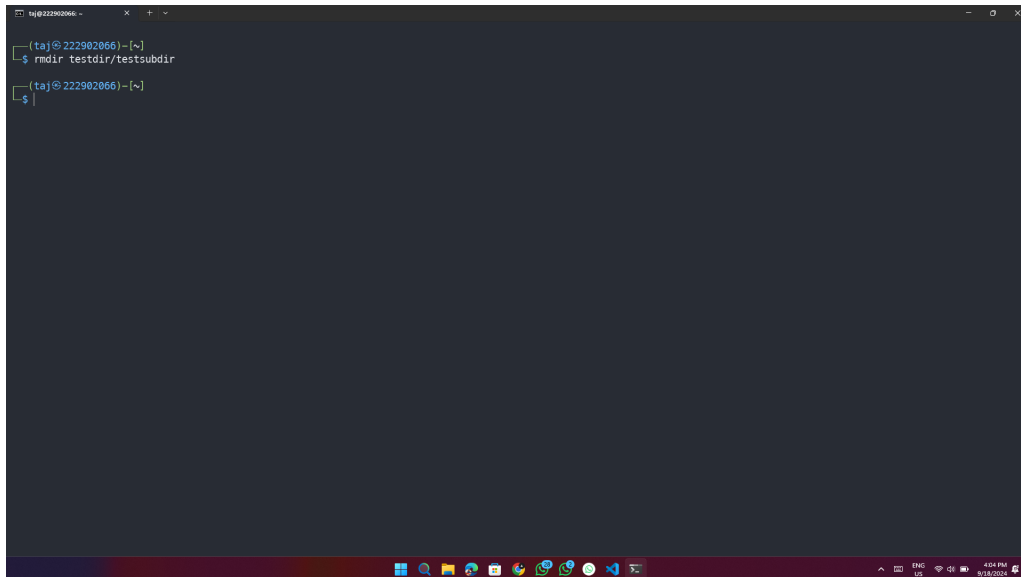
```
(taj@222902066)-[~]  
$ mkdir -p testdir/testsubdir  
(taj@222902066)-[~]  
$ whoami  
taj
```

uname - Shows system information like OS name and kernel version.

A terminal window titled 'taj@222902066 ~' with a dark background. The prompt is '(taj@222902066)-[~]'. The user enters '\$ mkdir -v newdir'. The output is 'mkdir: cannot create directory 'newdir': File exists'. The prompt returns to '(taj@222902066)-[~]'. The terminal is open on a desktop with a taskbar at the bottom showing various application icons and system status indicators on the right.

```
(taj@222902066)-[~]  
$ mkdir -v newdir  
mkdir: cannot create directory 'newdir': File exists  
(taj@222902066)-[~]  
$
```

arch - Displays the system architecture (e.g., x86\_64).

A terminal window titled 'taj@222902066 ~' with a dark background. The prompt is '(taj@222902066)-[~]'. The user enters '\$ rmdir testdir/testsubdir'. The prompt returns to '(taj@222902066)-[~]'. The terminal is open on a desktop with a taskbar at the bottom showing various application icons and system status indicators on the right.

```
(taj@222902066)-[~]  
$ rmdir testdir/testsubdir  
(taj@222902066)-[~]  
$
```