

1. ls : Lists files and directories in the current directory.

```
(taj@222902066)~$ ls
Desktop  image.png  Pictures      testfile1.txt  testfile6.txt  Videos
Documents lbfi       Public        testfile2.txt  testfile7.txt
Downloads Music      Templates     testfile4.txt  testfile8.txt
font.sh  newdir     testfile10.txt testfile5.txt  testfile9.txt

(taj@222902066)~$
```

2. ls -a : Lists all files, including hidden files (those starting with a dot).

```
(taj@222902066)~$ ls -a
.          .face      Pictures    testfile7.txt
..         .face.icon .pki        testfile8.txt
.bash_history .fonts     .profile    testfile9.txt
.bash_logout font.sh     Public      Videos
.bashrc      .gnupg     .python_history .viminfo
.bashrc.original .ICEauthority .sudo_as_admin_successful .vnc
.cache       image.png  Templates   .vscode-server
.config      .java     testfile10.txt .wget-hsts
.dbus        lbfi      testfile1.txt  .Xauthority
Desktop     .local    testfile2.txt  .zshrc
Documents   .mozilla  testfile4.txt
.dotnet     Music     testfile5.txt
Downloads   newdir    testfile6.txt

(taj@222902066)~$
```

3. `ls -l` : Displays a detailed list of files, including permissions, ownership, size, and modification date.

```
(taj@222902066)-[~]
$ ls -l
total 6848
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 4 taj taj 4096 Sep 19 14:54 Downloads
-rwxr-xr-x 1 taj taj 4169 Sep  9 00:30 font.sh
-rw-r--r-- 1 taj taj 152260 Sep 19 15:27 image.png
-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
-rw-r--r-- 1 taj taj 0 Sep 19 15:30 testfile10.txt
-rw-r--r-- 1 taj taj 0 Sep 19 15:30 testfile1.txt
-rw-r--r-- 1 taj taj 13 Oct  5 08:48 testfile2.txt
```

4. `ls -lh` : Shows file sizes in a human-readable format (KB, MB, etc.) along with detailed information.

```
(taj@222902066)-[~]
$ ls -lh
total 6.7M
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 4 taj taj 4.0K Sep 19 14:54 Downloads
-rwxr-xr-x 1 taj taj 4.1K Sep  9 00:30 font.sh
-rw-r--r-- 1 taj taj 149K Sep 19 15:27 image.png
-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
-rw-r--r-- 1 taj taj 0 Sep 19 15:30 testfile10.txt
-rw-r--r-- 1 taj taj 0 Sep 19 15:30 testfile1.txt
-rw-r--r-- 1 taj taj 13 Oct  5 08:48 testfile2.txt
```

5. ls -R : Lists files in all directories and subdirectories recursively.

```
(taj@222902066)-[~]
$ ls -R
.:
Desktop    image.png  Pictures      testfile1.txt  testfile6.txt  Videos
Documents  lbfi       Public        testfile2.txt  testfile7.txt
Downloads  Music      Templates     testfile4.txt  testfile8.txt
font.sh    newdir     testfile10.txt testfile5.txt  testfile9.txt

./Desktop:

./Documents:

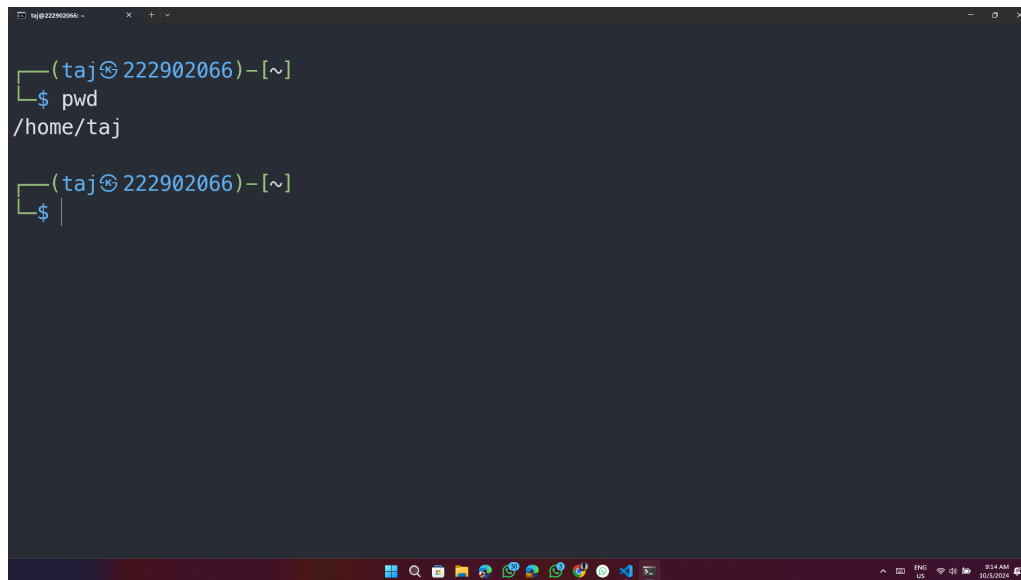
./Downloads:
cse310  google-chrome-stable_current_amd64.deb  labreport1

./Downloads/cse310:
barry.txt  example.png  firstfile  foo2    lab1    thirdfile
```

6. ls -ltr : Displays files sorted by modification time, with the most recent last, in long format.

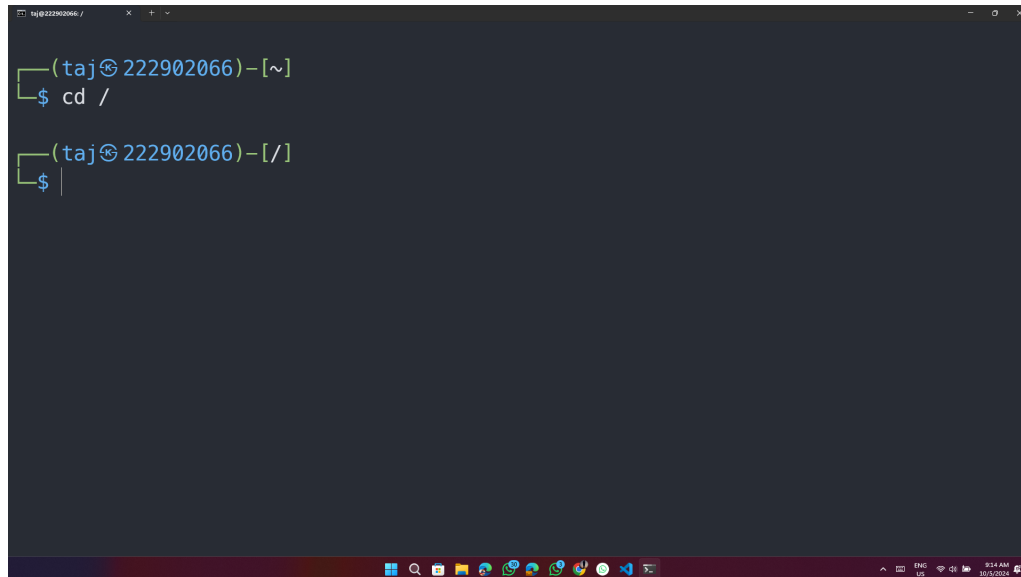
```
(taj@222902066)-[~]
$ ls -ltr
total 6848
drwxr-xr-x 2 taj taj 4096 Sep  7 21:50 Videos
drwxr-xr-x 2 taj taj 4096 Sep  7 21:50 Templates
drwxr-xr-x 2 taj taj 4096 Sep  7 21:50 Public
drwxr-xr-x 2 taj taj 4096 Sep  7 21:50 Pictures
drwxr-xr-x 2 taj taj 4096 Sep  7 21:50 Music
drwxr-xr-x 2 taj taj 4096 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 6807176 Sep  9 00:33 lbfi
drwxr-xr-x 2 taj taj 4096 Sep 18 14:20 newdir
drwxr-xr-x 4 taj taj 4096 Sep 19 14:54 Downloads
-rw-r--r-- 1 taj taj 152260 Sep 19 15:27 image.png
-rw-r--r-- 1 taj taj 0 Sep 19 15:30 testfile9.txt
-rw-r--r-- 1 taj taj 0 Sep 19 15:30 testfile8.txt
```

7. pwd : Prints the current working directory.

A terminal window titled 'taj@222902066' with a dark background. The prompt is '(taj@222902066)~'. The user enters 'pwd' and the output is '/home/taj'. The prompt then changes to '(taj@222902066)~' again, with a cursor on the next line.

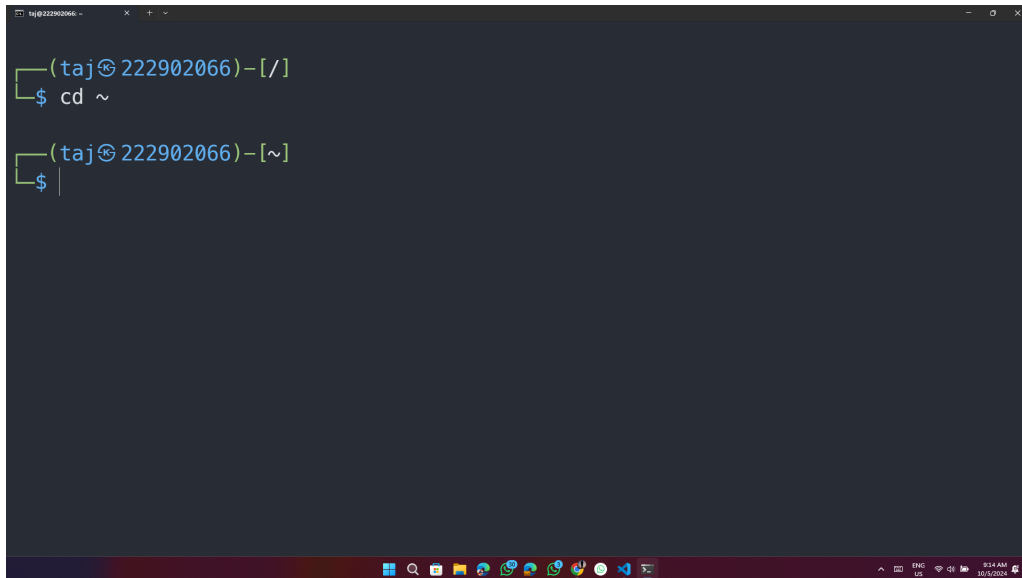
```
(taj@222902066)~  
$ pwd  
/home/taj  
  
(taj@222902066)~  
$
```

8. cd / : Changes to the root directory.

A terminal window titled 'taj@222902066 /' with a dark background. The prompt is '(taj@222902066)~'. The user enters 'cd /' and the prompt changes to '(taj@222902066)/'. The prompt then changes to '(taj@222902066)/' again, with a cursor on the next line.

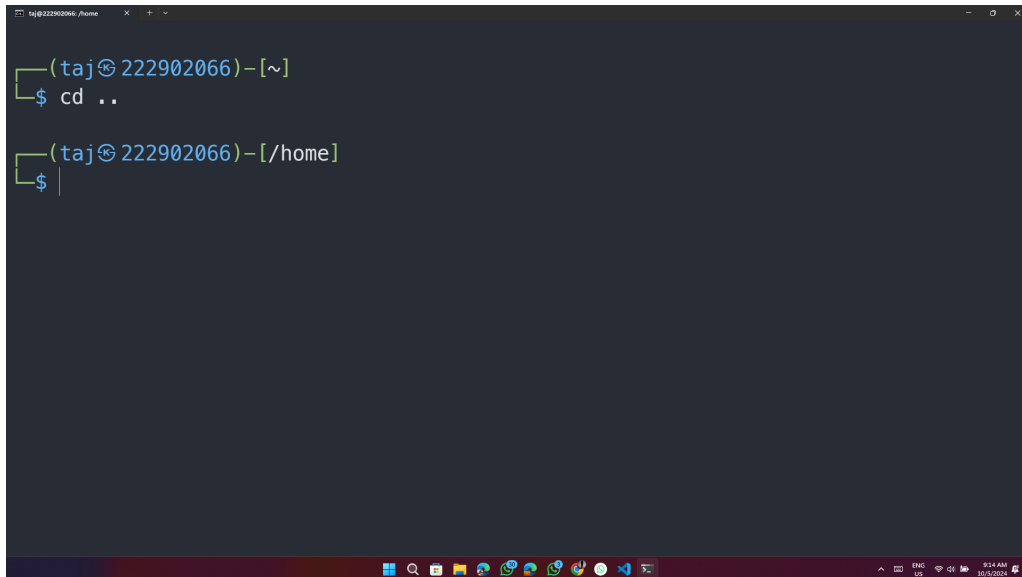
```
(taj@222902066)~  
$ cd /  
  
(taj@222902066)/  
$
```

9. `cd ~` : Changes to the home directory of the current user.

A terminal window titled 'taj@222902066' with a dark background. The prompt is '(taj@222902066)-[/]'. The user enters '\$ cd ~'. The prompt changes to '(taj@222902066)-[~]' and the cursor is on a new line after the '\$' symbol. The Windows taskbar is visible at the bottom with the time 9:14 AM on 10/2/2024.

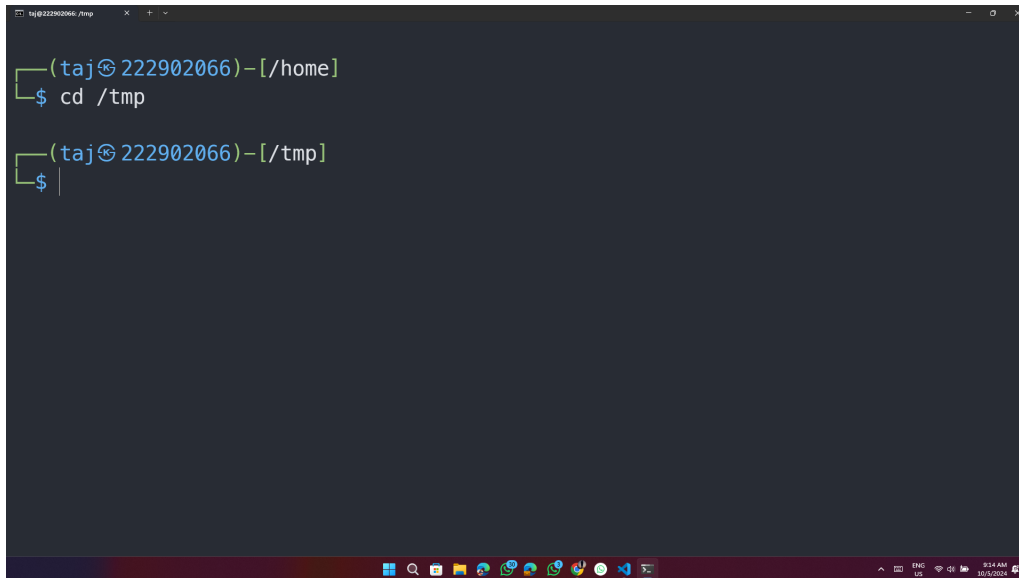
```
(taj@222902066)-[/]  
$ cd ~  
  
(taj@222902066)-[~]  
$
```

10. `cd ..` : Moves one directory up (to the parent directory).

A terminal window titled 'taj@222902066:home' with a dark background. The prompt is '(taj@222902066)-[~]'. The user enters '\$ cd ..'. The prompt changes to '(taj@222902066)-[/home]' and the cursor is on a new line after the '\$' symbol. The Windows taskbar is visible at the bottom with the time 9:14 AM on 10/2/2024.

```
(taj@222902066)-[~]  
$ cd ..  
  
(taj@222902066)-[/home]  
$
```

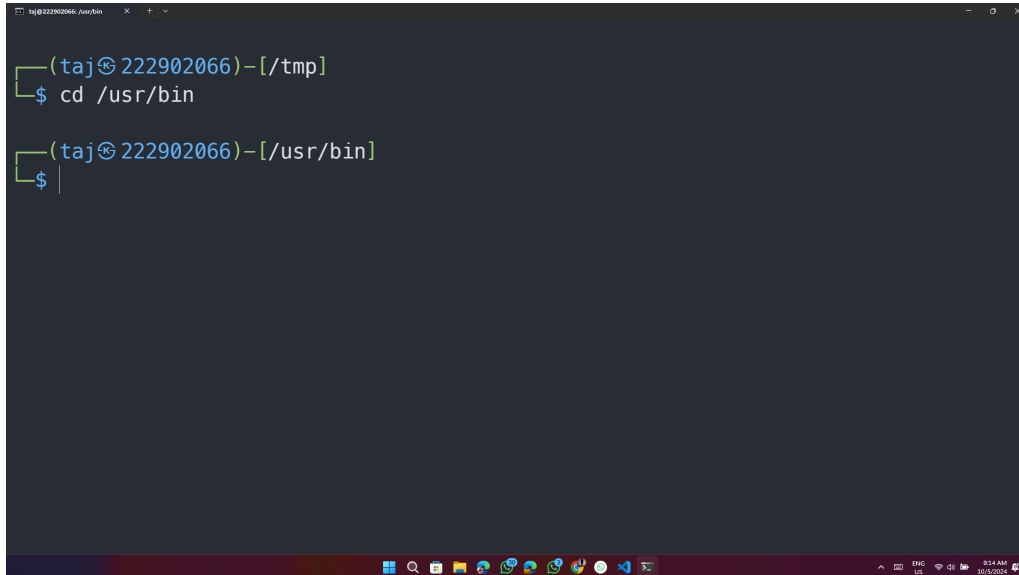
11. `cd /tmp` : Changes to the `/tmp` directory.

A terminal window titled 'taj@222902066: /tmp' showing a user named 'taj' with ID '222902066' at the '/home' directory. The user enters the command 'cd /tmp'. The prompt changes to show the current directory as '/tmp'.

```
(taj@222902066)-[/home]
$ cd /tmp

(taj@222902066)-[/tmp]
$
```

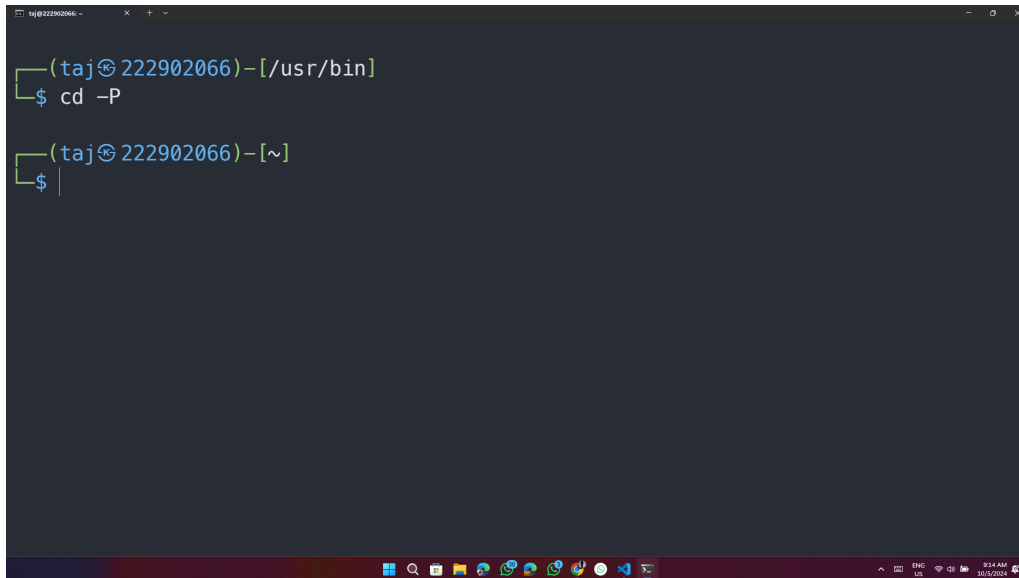
12. `cd /usr/bin` : Changes to the `/usr/bin` directory.

A terminal window titled 'taj@222902066: /usr/bin' showing the user 'taj' (ID '222902066') at the '/tmp' directory. The user enters the command 'cd /usr/bin'. The prompt changes to show the current directory as '/usr/bin'.

```
(taj@222902066)-[/tmp]
$ cd /usr/bin

(taj@222902066)-[/usr/bin]
$
```

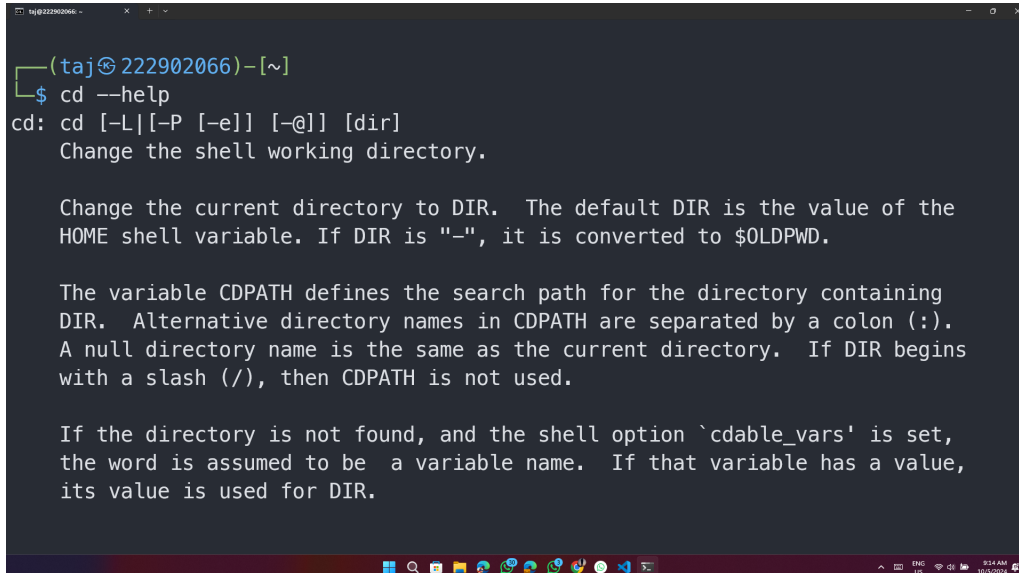
13. `cd -P` : Changes directory without following symbolic links.

A terminal window titled 'taj@222902066' with a dark background. The prompt is '(taj@222902066)-[/usr/bin]'. The user enters '\$ cd -P'. The prompt changes to '(taj@222902066)-[~]' and the cursor is on a new line after the '\$' prompt.

```
(taj@222902066)-[/usr/bin]
$ cd -P

(taj@222902066)-[~]
$
```

14. `cd --help` : Displays help information about the ``cd`` command.

A terminal window titled 'taj@222902066' with a dark background. The prompt is '(taj@222902066)-[~]'. The user enters '\$ cd --help'. The terminal displays the help text for the 'cd' command, including usage, description, and details about CDPATH and cdable_vars.

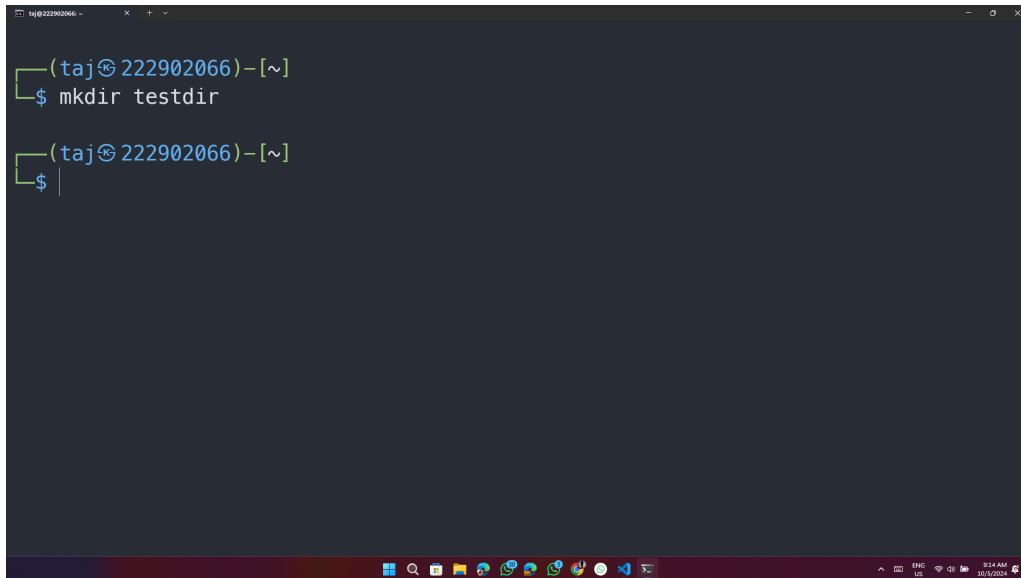
```
(taj@222902066)-[~]
$ cd --help
cd: cd [-L|[-P [-e]] [-@]] [dir]
    Change the shell working directory.

    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.

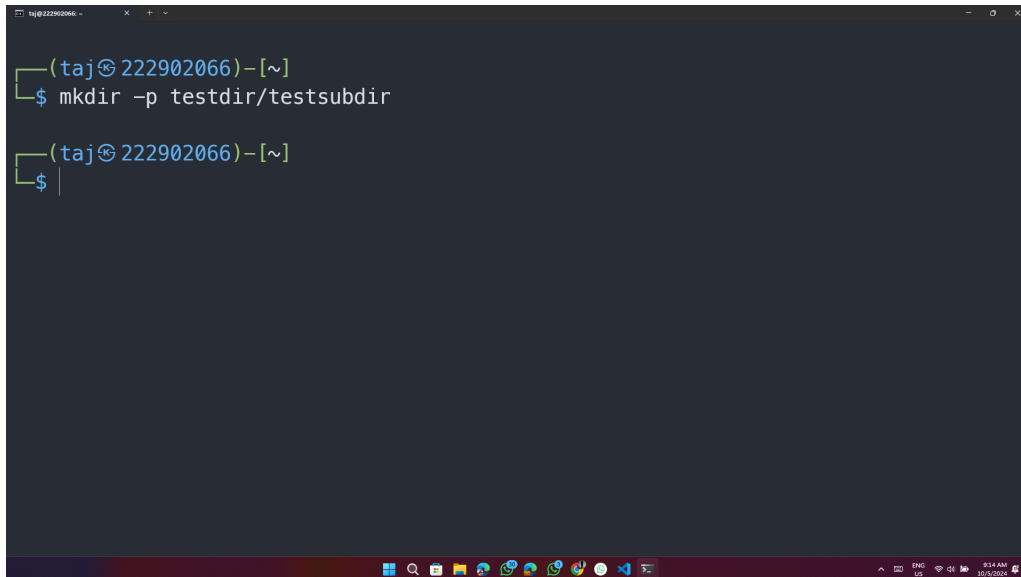
    If the directory is not found, and the shell option `cdable_vars' is set,
    the word is assumed to be a variable name.  If that variable has a value,
    its value is used for DIR.
```

15. `mkdir testdir` : Creates a directory named `testdir`.

A terminal window with a dark background. The prompt is `(taj@222902066)~`. The command `$ mkdir testdir` has been entered and executed. The prompt is now `$` on a new line.

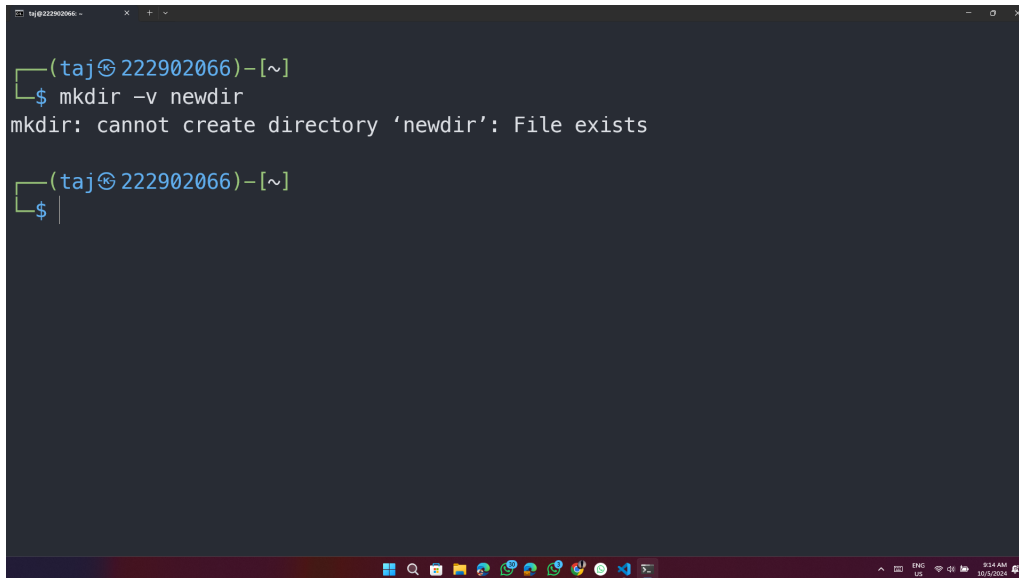
```
(taj@222902066)~  
$ mkdir testdir  
  
(taj@222902066)~  
$
```

16. `mkdir -p testdir/testsubdir` : Creates a directory and its parent directories if they do not exist.

A terminal window with a dark background. The prompt is `(taj@222902066)~`. The command `$ mkdir -p testdir/testsubdir` has been entered and executed. The prompt is now `$` on a new line.

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

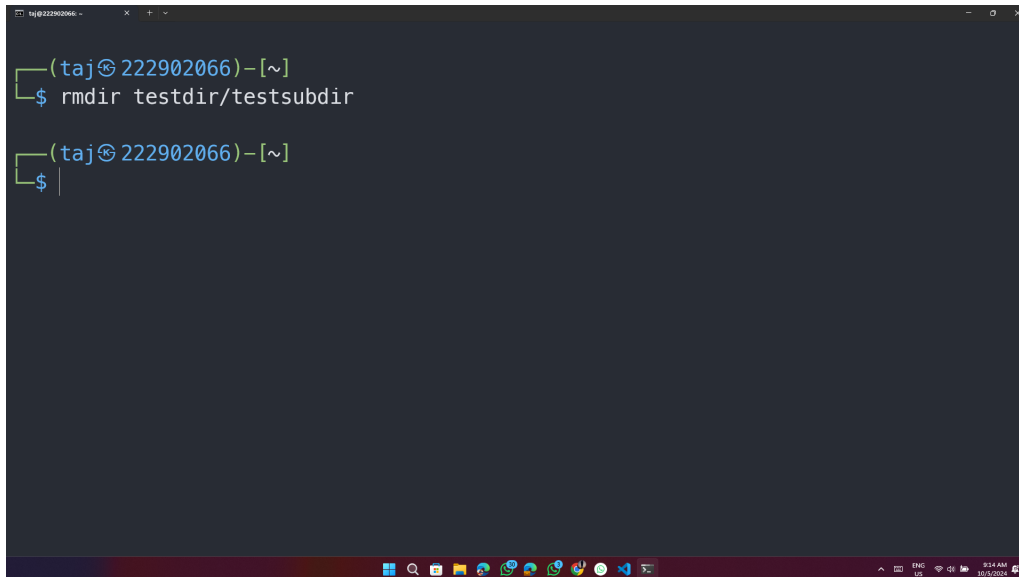

17. `mkdir -v newdir` : Verbosely creates a directory, displaying the result.

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)-[~]' followed by '\$' and a cursor. The Windows taskbar is visible at the bottom with the time 9:14 AM on 10/2/2024.

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

(taj@222902066)-[~]
$
```

18. `rmdir testdir/testsubdir` : Removes the empty directory 'testsubdir' from 'testdir'.

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)-[~]' followed by '\$' and a cursor. The Windows taskbar is visible at the bottom with the time 9:14 AM on 10/2/2024.

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

(taj@222902066)-[~]
$
```