Assignment-3

```
(base) saifaliawati@saifalis-MacBook-Air ~ % ls
<!DOCTYPE html>.html      Pictures            index.html            opt
AndroidStudioProjects     Postman             install.sh            package-lock.json
Applications              Public              java                  package.json
Day1 update               REACT               java.java             s
Desktop                   Shivam              k.txt                 sa
Documents                 Software            my_file.txt           sa234.txt
Downloads                 anaconda3           new1                  saif
LAB                       as                  new1.save             saif.css
Library                   avanti.save         new2                  saif23.txt.save
Movies                    corejava     news                        saifi
Music                     demo1.txt           newsapp               three
NEW                       ex                  node_modules          try
OneDrive       file1.txt          one                    user
(base) saifaliawati@saifalis-MacBook-Air ~ % mv sa234.txt rename.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % ls
<!DOCTYPE html>.html      Pictures            index.html            opt
AndroidStudioProjects     Postman             install.sh            package-lock.json
Applications              Public              java                  package.json
Day1 update               REACT               java.java             rename.txt
Desktop                   Shivam              k.txt                 s
Documents                 Software            my_file.txt           sa
Downloads                 anaconda3           new1                  saif
LAB                       as                  new1.save             saif.css
Library                   avanti.save         new2                  saif23.txt.save
Movies                    corejava     news                        saifi
Music                     demo1.txt           newsapp               three
NEW                       ex                  node_modules          try
OneDrive       file1.txt          one                    user
(base) saifaliawati@saifalis-MacBook-Air ~ % ln -s
usage: ln [-s [-F] | -L | -P] [-f | -i] [-hnv] source_file [target_file]
       ln [-s [-F] | -L | -P] [-f | -i] [-hnv] source_file ... target_dir
       link source_file target_file
(base) saifaliawati@saifalis-MacBook-Air ~ % ln -s demo1.txt shortcut.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % ln
usage: ln [-s [-F] | -L | -P] [-f | -i] [-hnv] source_file [target_file]
       ln [-s [-F] | -L | -P] [-f | -i] [-hnv] source_file ... target_dir
       link source_file target_file
(base) saifaliawati@saifalis-MacBook-Air ~ % ln  demo1.txt hardlink.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % stat demo1.txt
16777234 26688961 -rw-r--r-- 2 saifaliawati staff 0 38 "Dec 28 09:52:31 2023" "Dec 25 17:39:57 2023" "Dec 28
09:52:30 2023" "Dec 25 17:39:20 2023" 4096 8 0 demo1.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % touch -t 20230091200 demo1.txt
touch: out of range or illegal time specification: [[CC]YY]MMDDhhmm[.SS]
(base) saifaliawati@saifalis-MacBook-Air ~ % touch -t 202301011200 demo1.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % touch example.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % cat >> example.txt
saif
saiy
sej
saef
dffg
fgh
fgh
```

```
hji
(base) saifaliawati@saifalis-MacBook-Air ~ % tail -n +5 example.txt
dffg
fgh
fgh
hji
(base) saifaliawati@saifalis-MacBook-Air ~ % sed -n '5,$p' example.txt
dffg
fgh
fgh
hji
(base) saifaliawati@saifalis-MacBook-Air ~ % sed -n '1,$p' example.txt
saif
saiy
sej
saef
dffg
fgh
fgh
hji
(base) saifaliawati@saifalis-MacBook-Air ~ % sudo shutdown now
Password:
Sorry, try again.
Password:
shutdown: -h, -r, -s or -k is required
usage: shutdown [-] [-h [-u] | -r | -s | -k] [-o [-n]] time [warning-message ...]
(base) saifaliawati@saifalis-MacBook-Air ~ % sudo shutdown -k  now
Shutdown NOW!

*** FINAL System shutdown message from saifaliawati@saifalis-MacBook-Air.local
 ***

System going down IMMEDIATELY


System shutdown time has arrived
but you'll have to do it yourself
(base) saifaliawati@saifalis-MacBook-Air ~ %
 [Restored 28-Dec-2023 at 10:00:22 AM]
Last login: Thu Dec 28 10:00:13 on console
(base) saifaliawati@saifalis-MacBook-Air ~ % whoami
saifaliawati
(base) saifaliawati@saifalis-MacBook-Air ~ % tty
/dev/ttys001
(base) saifaliawati@saifalis-MacBook-Air ~ % whoami
saifaliawati
(base) saifaliawati@saifalis-MacBook-Air ~ % who am i
saifaliawati    ttys001    Dec 28 10:00
(base) saifaliawati@saifalis-MacBook-Air ~ % users
saifaliawati
(base) saifaliawati@saifalis-MacBook-Air ~ % who
saifaliawati    console     Dec 28 10:00
saifaliawati    ttys000    Dec 28 10:00
saifaliawati    ttys001    Dec 28 10:00
(base) saifaliawati@saifalis-MacBook-Air ~ % grep "sa" example.txt
saif
saiy
saef
(base) saifaliawati@saifalis-MacBook-Air ~ % grep -F  "sa" example.txt
saif
saiy
saef
(base) saifaliawati@saifalis-MacBook-Air ~ % chmod u-w example.txt
```

```
(base) saifaliawati@saifalis-MacBook-Air ~ % chmod 711 example.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % cat input.txt | wc -w > output.txt
cat: input.txt: No such file or directory
(base) saifaliawati@saifalis-MacBook-Air ~ % touch input.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % touch output.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % cat input.txt | wc -w > output.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % cat >> input.txt
dfcghvjbknlmshdgvcb dhesjv efhbjv%                              (base)
saifaliawati@saifalis-MacBook-Air ~ % cat input.txt | wc -w > output.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % echo "Word count: $(cat input.txt | wc -w)" > output.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % cat output.txt
Word count:       3
(base) saifaliawati@saifalis-MacBook-Air ~ % who | awk '{print NF}'
5
5
5
(base) saifaliawati@saifalis-MacBook-Air ~ % cat >> example.txt
saiu
ghj
aghs
sghj
shvj
sghj
sghjk
dvhbn
dxvcbn
svhbjn
svhbjn
svhxb
(base) saifaliawati@saifalis-MacBook-Air ~ % head -n 10 example.txt | tail -n +5
dffg
fgh
fgh
hji
saiu
ghj
(base) saifaliawati@saifalis-MacBook-Air ~ % sort example.txt | uniq
aghs
dffg
dvhbn
dxvcbn
fgh
ghj
hji
saef
saif
saiu
saiy
sej
sghj
sghjk
shvj
svhbjn
svhxb
(base) saifaliawati@saifalis-MacBook-Air ~ % sort example.txt | uniq -c
   1 aghs
   1 dffg
   1 dvhbn
   1 dxvcbn
   2 fgh
   1 ghj
   1 hji
```

```
   1 saef
   1 saif
   1 saiu
   1 saiy
   1 sej
   2 sghj
   1 sghjk
   1 shvj
   2 svhbjn
   1 svhxb
(base) saifaliawati@saifalis-MacBook-Air ~ % who | grep -v -E 'tty2|tty3|tty4'
saifaliawati    console     Dec 28 10:00
saifaliawati    ttys000     Dec 28 10:00
saifaliawati    ttys001     Dec 28 10:00
(base) saifaliawati@saifalis-MacBook-Air ~ % ls -l -S
total 1480
-rw-r--r--@  1 saifaliawati  staff  632378 Dec 19 14:54 package-lock.json
-rw-r--r--   1 saifaliawati  staff   30652 Sep 12 13:56 install.sh
drwxr-xr-x  860 saifaliawati  staff   27520 Dec 19 14:54 node_modules
drwx------@ 389 saifaliawati  staff   12448 Dec 26 17:05 Downloads
drwx------@ 251 saifaliawati  staff    8032 Dec 26 16:15 Desktop
-rw-r--r--@  1 saifaliawati  staff    6075 Sep  1 18:12 index.html
drwx------@ 111 saifaliawati  staff    3552 Dec 17 18:28 Library
-rw-r--r--   1 saifaliawati  staff    2954 Jul  9 15:22 <!DOCTYPE html>.html
drwxr-xr-x   25 saifaliawati  staff     800 May 31  2023 anaconda3
drwx------@  20 saifaliawati  staff     640 Dec 26 18:59 Documents
drwxr-xr-x   16 saifaliawati  staff     512 Sep  7 15:49 Day1 update
drwxr-xr-x@  10 saifaliawati  staff     320 Sep  1 16:15 news
drwxr-xr-x@  10 saifaliawati  staff     320 Sep  1 16:10 newsapp
drwx------@   9 saifaliawati  staff     288 Jun 22  2022 OneDrive
drwxr-xr-x    9 saifaliawati  staff     288 Sep 12 15:16 corejava
drwx------+   8 saifaliawati  staff     256 Oct  1  2022 Pictures
drwx------    7 saifaliawati  staff     224 Apr  8  2023 Movies
-rw-r--r--    1 saifaliawati  staff     213 Nov  8 14:31 package.json
drwx------+   6 saifaliawati  staff     192 Jul 12  2022 Music
drwxr-xr-x    6 saifaliawati  staff     192 Dec 28 09:37 one
drwxr-xr-x    6 saifaliawati  staff     192 Dec 25 16:57 saifi
drwxr-xr-x    5 saifaliawati  staff     160 Dec  6 17:42 AndroidStudioProjects
drwxr-xr-x    5 saifaliawati  staff     160 Nov  8 14:51 NEW
drwx------@   4 saifaliawati  staff     128 Aug 27 16:39 Applications
drwxr-xr-x+   4 saifaliawati  staff     128 Dec 25  2021 Public
drwxr-xr-x    4 saifaliawati  staff     128 Nov  1 14:41 REACT
drwxr-xr-x@   4 saifaliawati  staff     128 Jun 25  2022 Software
-rw-r--r--    1 saifaliawati  staff     125 Sep  9 04:17 java.java
-rwx--x--x    1 saifaliawati  staff     104 Dec 28 10:11 example.txt
drwxr-xr-x    3 saifaliawati  staff      96 Nov  8 08:33 LAB
drwxr-xr-x@   3 saifaliawati  staff      96 Oct 30 15:05 Postman
drwxr-xr-x    3 saifaliawati  staff      96 Dec 19 14:53 ex
drwxr-xr-x    3 saifaliawati  staff      96 May 22  2022 opt
drwxr-xr-x    3 saifaliawati  staff      96 Dec 28 09:21 three
drwxr-xr-x@   3 saifaliawati  staff      96 Nov 18 16:05 user
drwxr-xr-x    2 saifaliawati  staff      64 Jul 30  2022 Shivam
drwxr-xr-x    2 saifaliawati  staff      64 Dec 25 13:14 new1
-rw-r--r--    1 saifaliawati  staff      46 Dec 25 13:16 new2
-rw-r--r--    2 saifaliawati  staff      38 Jan  1  2023 demo1.txt
-rw-r--r--    2 saifaliawati  staff      38 Jan  1  2023 hardlink.txt
-rw-------    1 saifaliawati  staff      35 Dec 25 14:41 new1.save
-rw-r--r--    1 saifaliawati  staff      33 Dec 28 10:08 input.txt
-rw-------    1 saifaliawati  staff      30 Dec 26 16:17 saif23.txt.save
-rw-r--r--    1 saifaliawati  staff      28 Dec 25 17:21 as
-rw-r--r--    1 saifaliawati  staff      27 Jun 26  2021 my_file.txt
-rw-r--r--    1 saifaliawati  staff      24 Dec 25 16:59 file1.txt
```

```
-rw-r--r--   1 saifaliawati  staff       21 Dec 28 10:09 output.txt
-rw-r--r--   1 saifaliawati  staff       19 Jul  9 15:24 saif.css
-rw-r--r--   1 saifaliawati  staff       15 Dec 25 16:46 sa
-rw-r--r--   1 saifaliawati  staff       15 Dec 25 16:48 saif
-rw-r--r--   1 saifaliawati  staff       13 Dec 25 17:03 k.txt
-rw-------   1 saifaliawati  staff       11 Dec 25 14:41 avanti.save
lrwxr-xr-x   1 saifaliawati  staff        9 Dec 28 09:51 shortcut.txt -> demo1.txt
-rw-r--r--   1 saifaliawati  staff        5 Dec 26 16:07 rename.txt
-rw-r--r--   1 saifaliawati  staff        0 Sep  9 04:16 java
-rw-r--r--   1 saifaliawati  staff        0 Dec 25 17:36 s
-rw-r--r--   1 saifaliawati  staff        0 Oct 16  2005 try
(base) saifaliawati@saifalis-MacBook-Air ~ % ls -l | grep -E '^-|^d'
-rw-r--r--   1 saifaliawati  staff     2954 Jul  9 15:22 <!DOCTYPE html>.html
drwxr-xr-x   5 saifaliawati  staff      160 Dec  6 17:42 AndroidStudioProjects
drwx------@  4 saifaliawati  staff      128 Aug 27 16:39 Applications
drwxr-xr-x  16 saifaliawati  staff      512 Sep  7 15:49 Day1 update
drwx------@ 251 saifaliawati  staff     8032 Dec 26 16:15 Desktop
drwx------@  20 saifaliawati  staff      640 Dec 26 18:59 Documents
drwx------@ 389 saifaliawati  staff    12448 Dec 26 17:05 Downloads
drwxr-xr-x   3 saifaliawati  staff       96 Nov  8 08:33 LAB
drwx------@ 111 saifaliawati  staff     3552 Dec 17 18:28 Library
drwx------   7 saifaliawati  staff      224 Apr  8  2023 Movies
drwx------+  6 saifaliawati  staff      192 Jul 12  2022 Music
drwxr-xr-x   5 saifaliawati  staff      160 Nov  8 14:51 NEW
drwx------@  9 saifaliawati  staff      288 Jun 22  2022 OneDrive
drwx------+  8 saifaliawati  staff      256 Oct  1  2022 Pictures
drwxr-xr-x@  3 saifaliawati  staff       96 Oct 30 15:05 Postman
drwxr-xr-x+  4 saifaliawati  staff      128 Dec 25  2021 Public
drwxr-xr-x   4 saifaliawati  staff      128 Nov  1 14:41 REACT
drwxr-xr-x   2 saifaliawati  staff       64 Jul 30  2022 Shivam
drwxr-xr-x@  4 saifaliawati  staff      128 Jun 25  2022 Software
drwxr-xr-x  25 saifaliawati  staff      800 May 31  2023 anaconda3
-rw-r--r--   1 saifaliawati  staff       28 Dec 25 17:21 as
-rw-------   1 saifaliawati  staff       11 Dec 25 14:41 avanti.save
drwxr-xr-x   9 saifaliawati  staff      288 Sep 12 15:16 corejava
-rw-r--r--   2 saifaliawati  staff       38 Jan  1  2023 demo1.txt
drwxr-xr-x   3 saifaliawati  staff       96 Dec 19 14:53 ex
-rwx--x--x   1 saifaliawati  staff      104 Dec 28 10:11 example.txt
-rw-r--r--   1 saifaliawati  staff       24 Dec 25 16:59 file1.txt
-rw-r--r--   2 saifaliawati  staff       38 Jan  1  2023 hardlink.txt
-rw-r--r--@  1 saifaliawati  staff     6075 Sep  1 18:12 index.html
-rw-r--r--   1 saifaliawati  staff       33 Dec 28 10:08 input.txt
-rw-r--r--   1 saifaliawati  staff    30652 Sep 12 13:56 install.sh
-rw-r--r--   1 saifaliawati  staff        0 Sep  9 04:16 java
-rw-r--r--   1 saifaliawati  staff      125 Sep  9 04:17 java.java
-rw-r--r--   1 saifaliawati  staff       13 Dec 25 17:03 k.txt
-rw-r--r--   1 saifaliawati  staff       27 Jun 26  2021 my_file.txt
drwxr-xr-x   2 saifaliawati  staff       64 Dec 25 13:14 new1
-rw-------   1 saifaliawati  staff       35 Dec 25 14:41 new1.save
-rw-r--r--   1 saifaliawati  staff       46 Dec 25 13:16 new2
drwxr-xr-x@  10 saifaliawati  staff      320 Sep  1 16:15 news
drwxr-xr-x@  10 saifaliawati  staff      320 Sep  1 16:10 newsapp
drwxr-xr-x  860 saifaliawati  staff    27520 Dec 19 14:54 node_modules
drwxr-xr-x   6 saifaliawati  staff      192 Dec 28 09:37 one
drwxr-xr-x   3 saifaliawati  staff       96 May 22  2022 opt
-rw-r--r--   1 saifaliawati  staff       21 Dec 28 10:09 output.txt
-rw-r--r--@  1 saifaliawati  staff   632378 Dec 19 14:54 package-lock.json
-rw-r--r--   1 saifaliawati  staff      213 Nov  8 14:31 package.json
-rw-r--r--   1 saifaliawati  staff        5 Dec 26 16:07 rename.txt
-rw-r--r--   1 saifaliawati  staff        0 Dec 25 17:36 s
-rw-r--r--   1 saifaliawati  staff       15 Dec 25 16:46 sa
-rw-r--r--   1 saifaliawati  staff       15 Dec 25 16:48 saif
```

```
-rw-r--r--   1 saifaliawati  staff      19 Jul  9 15:24 saif.css
-rw-------   1 saifaliawati  staff      30 Dec 26 16:17 saif23.txt.save
drwxr-xr-x   6 saifaliawati  staff     192 Dec 25 16:57 saifi
drwxr-xr-x   3 saifaliawati  staff      96 Dec 28 09:21 three
-rw-r--r--   1 saifaliawati  staff       0 Oct 16  2005 try
drwxr-xr-x@  3 saifaliawati  staff      96 Nov 18 16:05 user
(base) saifaliawati@saifalis-MacBook-Air ~ % ls -a | grep '^\.'
.
..
.CFUserTextEncoding
.DS_Store
.IdentityService
.ServiceHub
.Trash
.anaconda
.android
.aspnet
.bash_profile
.cache
.config
.continuum
.dotnet
.eclipse
.emulator_console_auth_token
.git
.gitconfig
.gradle
.ipython
.lemminx
.lesshst
.local
.m2
.minikube
.mono
.my.cnf
.mysql_history
.npm
.npm-global
.npmrc
.nuget
.redhat
.sadfg
.ssh
.sts4
.tcshrc
.templateengine
.th-client
.viminfo
.vs-kubernetes
.vscode
.xonshrc
.zprofile
.zsh_history
.zsh_sessions
.zshrc
(base) saifaliawati@saifalis-MacBook-Air ~ % echo "This   is    an   example." | tr -s ' '
This is an example.
(base) saifaliawati@saifalis-MacBook-Air ~ % echo "hello world" | tr '[:lower:]' '[:upper:]'
HELLO WORLD
(base) saifaliawati@saifalis-MacBook-Air ~ % touch data.txt
(base) saifaliawati@saifalis-MacBook-Air ~ % cat >> data.txt
John,Doe,30,Engineer
```

```
Jane,Smith,25,Doctor
Bob,Jones,40,Teacher
(base) saifaliawati@saifalis-MacBook-Air ~ % cut -d',' -f1,3 data.txt
John,30
Jane,25
Bob,40
(base) saifaliawati@saifalis-MacBook-Air ~ % sort example.txt | uniq
who
aghs
dffg
dvhbn
dxvcbn
fgh
ghj
hji
saef
saif
saiu
saiy
sej
sghj
sghjk
shvj
svhbjn
svhxb
saifaliawati    console     Dec 28 10:00
saifaliawati    ttys000     Dec 28 10:00
saifaliawati    ttys001     Dec 28 10:00
saifaliawati    ttys002     Dec 28 10:46
saifaliawati    ttys003     Dec 28 14:25
(base) saifaliawati@saifalis-MacBook-Air ~ % who
saifaliawati    console     Dec 28 10:00
saifaliawati    ttys000     Dec 28 10:00
saifaliawati    ttys001     Dec 28 10:00
saifaliawati    ttys002     Dec 28 10:46
saifaliawati    ttys003     Dec 28 14:25
(base) saifaliawati@saifalis-MacBook-Air ~ % who | grep -vE 'tty'
saifaliawati    console     Dec 28 10:00
(base) saifaliawati@saifalis-MacBook-Air ~ %
[200~/Users/saifaliawati/Desktop/Assignment/OperatingSystem/Assignment1\ os.pdf ~
```