| ~/L/Cl/O/Do/I | /SEM6/PHY47/ | PHY473_home_work | <pre>touch</pre> | example1.txt | t | 15:25:24 |
|--|--|---|--------------------------------|--------------------|------------------|--------------------|
| ~/L/C1/O/Do/I creatdir.sh example1.txt | file1 | | <pre>1 > 1s 11e4 11e5</pre> | file6 file7 | file8 file9 | 15:26:10 |
| ~/L/C1/O/Do/I | /SEM6/PHY47/ | PHY473_home_work | <pre>cat <u>e</u></pre> | xample1.txt | | 15:26:12 |
| ~/L/C1/O/Do/I example1.txt | /SEM6/PHY47/ | PHY473_home_work | <pre>< > echo</pre> | First, Last, | Occupatipon, Ag | e, Sex >> |
| ~/L/Cl/O/Do/I First, Last, | | PHY473_home_work Age, Sex | <pre>cat <u>e</u></pre> | xample1.txt | | 15:27:04 |
| ~/L/Cl/O/Do/I example1.txt | /SEM6/PHY47/ | PHY473_home_work | <pre>< > echo</pre> | Albert, Einst | tein, Scientist, | 60, M >> |
| ~/L/C1/O/Do/I <u>xt</u> | /SEM6/PHY47/ | PHY473_home_work | <pre>< > echo</pre> | Tom, Hanks, A | Actor, 55, M >> | example1.t |
| ~/L/Cl/O/Do/I ple1.txt | /SEM6/PHY47/ | PHY473_home_work | <pre>< > echo</pre> | Elvis, Presle | ey, Musician,43, | M >> <u>exam</u> |
| ~/L/Cl/O/Do/I ample1.txt | /SEM6/PHY47/ | PHY473_home_work | <pre>< > echo</pre> | Natalie, Port | tman, Actress, 4 | .2, F >> <u>ex</u> |
| ~/L/Cl/O/Do/I ple1.txt | /SEM6/PHY47/ | PHY473_home_work | <pre>< > echo</pre> | Marie, Curie, | , Scientist, 50, | F >> <u>exam</u> |
| ~/L/Cl/O/Do/I First, Last, Albert, Einst Tom, Hanks, A Elvis, Presle Natalie, Port Marie, Curie, | Occupatipon, ein, Scientis ctor, 55, M y, Musician, man, Actress | st, 60, M 43, M , 42, F | (> cat <u>e</u> | <u>xample1.txt</u> | | 15:29:18 |
| ~/L/C1/O/Do/I | /SEM6/PHY47/ | PHY473_home_work | <pre></pre> | bash_problem | ns | 15:29:21 |
| ~/L/Cl/O/Do/I bash_problems creatdir.sh example1.txt | file1 file10 | PHY473_home_work file3 file4 file5 | <pre>file6 file7 file8</pre> | file9 | | 15:29:34 |
| ~/L/Cl/O/Do/I | /SEM6/PHY47/ | PHY473_home_work | > mv <u>ex</u> | ample1.txt ba | ash_problems | 15:29:35 |
| ~/L/C1/O/Do/I bash_problems creatdir.sh | file1 | PHY473_home_work file2 file3 | <pre>file4 file5</pre> | file6 file7 | | 15:30:01 |
| ~/L/C1/O/Do/I | /SEM6/PHY47/ | PHY473_home_work | cd <u>ba</u> | sh_problems | | 15:30:02 |
| ~/L/Cl/O/Do/I example1.txt | /SEM6/PHY47/F | P/bash_problems | > 1s | | | 15:30:08 |
| ~/L/Cl/O/Do/I First, Last, C Albert, Einst Tom, Hanks, A | Occupatipon, ein, Scientis | • | > cat <u>ex</u> | ample1.txt | | 15:30:09 |

```
Elvis, Presley, Musician, 43, M
Natalie, Portman, Actress, 42, F
Marie, Curie, Scientist, 50, F
                                                                              15:30:12
~/L/Cl/0/Do/I/SEM6/PHY47/P/bash_problems > cp example1.txt example2.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > 1s
                                                                               15:30:31
example1.txt example2.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat example2.txt
                                                                              15:30:34
First, Last, Occupatipon, Age, Sex
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
Elvis, Presley, Musician, 43, M
Natalie, Portman, Actress, 42, F
Marie, Curie, Scientist, 50, F
                                                                              15:30:41
~/L/Cl/0/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example2.txt
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
Elvis, Presley, Musician, 43, M
Natalie, Portman, Actress, 42, F
Marie, Curie, Scientist, 50, F
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example2.txt | sort example2.txt
Albert, Einstein, Scientist, 60, M
Elvis, Presley, Musician, 43, M
First, Last, Occupatipon, Age, Sex
Marie, Curie, Scientist, 50, F
Natalie, Portman, Actress, 42, F
Tom, Hanks, Actor, 55, M
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > sort -k4 example2.txt | tail -n +2 example2.
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
Elvis, Presley, Musician, 43, M
Natalie, Portman, Actress, 42, F
Marie, Curie, Scientist, 50, F
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example2.txt | sort -k4 -n exampl
e2.txt
Elvis, Presley, Musician, 43, M
First, Last, Occupatipon, Age, Sex
Natalie, Portman, Actress, 42, F
Marie, Curie, Scientist, 50, F
Tom, Hanks, Actor, 55, M
Albert, Einstein, Scientist, 60, M
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems >
                                                                               15:39:19
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems >
                                                                               15:40:35
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example2.txt | sort
                                                                              15:40:35
Albert, Einstein, Scientist, 60, M
Elvis, Presley, Musician, 43, M
Marie, Curie, Scientist, 50, F
Natalie, Portman, Actress, 42, F
Tom, Hanks, Actor, 55, M
```

```
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example2.txt | sort -k4 -rn
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
Marie, Curie, Scientist, 50, F
Natalie, Portman, Actress, 42, F
Elvis, Presley, Musician, 43, M
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > grep "Elvis" example1.txt
                                                                       15:42:21
Elvis, Presley, Musician, 43, M
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > grep "E[a-z][a-z][a-z]" example1.txt
Albert, Einstein, Scientist, 60, M
Elvis, Presley, Musician, 43, M
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > grep "E[a-z][a-z][a-z] " example1.txt
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > grep "E[a-z][a-z][a-z]" example1.txt
Albert, Einstein, Scientist, 60, M
Elvis, Presley, Musician, 43, M
~/L/Cl/0/Do/I/SEM6/PHY47/P/bash_problems > grep -i "E[a-z][a-z][a-z]" example1.txt
Albert, Einstein, Scientist, 60, M
Elvis, Presley, Musician, 43, M
Marie, Curie, Scientist, 50, F
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > grep "^E[a-z][a-z][a-z]" example1.txt
Elvis, Presley, Musician, 43, M
~/L/Cl/0/Do/I/SEM6/PHY47/P/bash_problems > grep "^E[a-z][a-z][a-z]" example1.txt
Elvis, Presley, Musician, 43, M
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > no
                                                                             15:55:20
zsh: command not found: no
~/L/Cl/0/Do/I/SEM6/PHY47/P/bash_problems > grep -E "E[a-z][a-z][a-z]" example1.txt
Albert, Einstein, Scientist, 60, M
Elvis, Presley, Musician, 43, M
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > grep -E "E[a-z][a-z][a-z][a-z]$" example1.tx
t
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | sort -k2 | awk '{
print $1 , $2 , $3 }' | >> names.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ls
                                                                             16:16:46
example1.txt example2.txt names.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat names.txt
                                                                             16:16:50
Marie, Curie, Scientist,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician, 43,
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | sort -k2 | awk '{
print $1,$2,$3}' | > name.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ls
                                                                             16:20:10
```

```
example1.txt example2.txt name.txt names.txt
```

```
~/L/C1/O/Do/I/SEM6/PHY47/P/bash problems > cat name.txt
                                                                               16:20:13
Marie, Curie, Scientist,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician, 43,
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > vim example1.txt
                                                                              16:20:18
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | sort -k2 | awk '{
print $1,$2,$3}' | > name.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat name.txt
                                                                               16:20:51
Marie, Curie, Scientist,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician,
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > mv name.txt names.txt
                                                                               16:20:55
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ls
                                                                               16:21:07
example1.txt example2.txt names.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat names.txt
                                                                               16:21:08
Marie, Curie, Scientist,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician,
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > nice
                                                                               16:21:14
usage: nice [-n increment] utility [argument ...]
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > sed 's/Scientist/Physicist/g' names.txt
Marie, Curie, Physicist,
Albert, Einstein, Physicist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician,
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > cat names.txt
                                                                               16:23:14
Marie, Curie, Scientist,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician,
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | awk '$5=F' | > fem
ale.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat female.txt
                                                                              16:27:31
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | awk '$5 = "F"' | >
 female.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat female.txt
                                                                               16:46:58
```

```
Albert, Einstein, Scientist, 60, F
Tom, Hanks, Actor, 55, F
Elvis, Presley, Musician, 43, F
Natalie, Portman, Actress, 42, F
Marie, Curie, Scientist, 50, F
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > example1.txt
                                                                              16:47:05
zsh: command not found: example1.txt
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > cat example1.txt
                                                                              16:47:19
First, Last, Occupatipon, Age, Sex
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
Elvis, Presley, Musician, 43, M
Natalie, Portman, Actress, 42, F
Marie, Curie, Scientist, 50, F
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | awk '$5 -eq "F"' |
> female.txt
                                                                              16:47:45
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ls
example1.txt example2.txt female.txt names.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat female.txt
                                                                              16:47:49
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
Elvis, Presley, Musician, 43, M
Natalie, Portman, Actress, 42, F
Marie, Curie, Scientist, 50, F
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | awk '/F/{ print $1
, $2 , $3 , $4 }' | > female.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat female.txt
                                                                              16:52:53
Natalie, Portman, Actress, 42,
Marie, Curie, Scientist, 50,
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems >
                                                                              16:52:58
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ls
                                                                              16:54:02
example1.txt example2.txt female.txt names.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > vim copy.sh
                                                                              16:54:03
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > which -a bash
                                                                           6s 16:57:24
/opt/local/bin/bash
/opt/homebrew/bin/bash
/bin/bash
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > vim copy.sh
                                                                              16:57:29
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat copy.sh
                                                                          51s 16:58:27
#!/opt/homebrew/bin/bash
for file in *.txt; do
        echo "$file"
done
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > chmod u+x copy.sh
                                                                              16:58:32
```

```
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ./copy.sh
                                                                              16:58:48
example1.txt
example2.txt
female.txt
names.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > vim copy.sh
                                                                              16:58:52
                                                                     3m 43s 17:08:55
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > vim copy.sh
                                                                          57s 17:11:59
~/L/C1/O/Do/I/SEM6/PHY47/P/bash problems >
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems >
                                                                              17:11:59
~/L/C1/O/Do/I/SEM6/PHY47/P/bash problems > ./copy.sh
                                                                              17:12:00
copying : example1.txt
head: illegal line count -- -2
copying : example2.txt
head: illegal line count -- -2
copying : female.txt
head: illegal line count -- -2
copying : names.txt
head: illegal line count -- -2
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ls
                                                                              17:12:04
                 example2-copy.txt female.txt
copy.sh
example1-copy.txt example2.txt names-copy.txt
example1.txt female-copy.txt names.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat female.txt
                                                                              17:12:13
Natalie, Portman, Actress, 42,
Marie, Curie, Scientist, 50,
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > cat names.txt
                                                                              17:12:30
Marie, Curie, Scientist,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician,
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > cat names-copy.txt
                                                                              17:12:51
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > vim copy.sh
                                                                              17:13:01
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ./copy.sh
                                                                     1m 30s 17:14:39
copying : example1-copy.txt
copying : example1.txt
copying : example2-copy.txt
copying : example2.txt
copying : female-copy.txt
copying : female.txt
copying : names-copy.txt
copying : names.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ./copy.sh
                                                                              17:14:45
copying : example1.txt
copying : example2.txt
```

copying : female.txt

```
copying : names.txt
```

```
~/L/C1/O/Do/I/SEM6/PHY47/P/bash problems > cat names.sh
                                                                              17:15:27
cat: names.sh: No such file or directory
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat names.txt
                                                                              17:15:40
Marie, Curie, Scientist,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician,
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > cat names-copy.txt
                                                                              17:15:46
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat co
                                                                              17:15:54
cat: co: No such file or directory
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat copy.sh
                                                                              17:16:09
#!/opt/homebrew/bin/bash
for file in *.txt; do
        echo "copying: $file"
        filename=${file::-4}
        tail -n +2 "$file" | head -2 | > "$filename-copy.txt"
done
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | head -2 17:16:12
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 example1.txt | head -2 | > test.t
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat text
                                                                              17:17:29
cat: text: No such file or directory
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat text.txt
                                                                              17:17:34
cat: text.txt: No such file or directory
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat test.txt
                                                                              17:17:38
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ls
                                                                              17:17:45
                  example2-copy.txt female.txt
copy.sh
                                                      test.txt
example1-copy.txt example2.txt
                                  names-copy.txt
                 female-copy.txt names.txt
example1.txt
~/L/Cl/0/Do/I/SEM6/PHY47/P/bash_problems > cat example1-copy.txt
                                                                             17:17:56
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 "example1.txt" | head -2
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > tail -n +2 "example1.txt" | head -2
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > vim copy.sh
                                                                              17:18:39
```

```
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ./copy.sh
                                                                    2m 36s 17:21:28
copying : example1.txt
copying : example2.txt
copying : female.txt
copying : names.txt
copying : test.txt
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > cat example1-copy.txt
                                                                             17:21:32
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > cat female-copy.txt
                                                                             17:21:42
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > rm *-copy.txt
                                                                             17:21:56
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ls
                                                                             17:23:21
copy.sh example1.txt example2.txt female.txt names.txt test.txt
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > for file in *.txt
                                                                             17:23:23
for>
~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > for file in *.txt ; do INT 17:24:05
for>
~/L/Cl/0/Do/I/SEM6/PHY47/P/bash_problems > for file in *.txt; do
                                                                        INT 17:24:30
for> tail -n +2 "$file" | head -2
for> done
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
Albert, Einstein, Scientist, 60, M
Tom, Hanks, Actor, 55, M
Marie, Curie, Scientist, 50,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Tom, Hanks, Actor, 55, M
~/L/C1/O/Do/I/SEM6/PHY47/P/bash problems > 1s
                                                                             17:25:25
copy.sh example1.txt example2.txt female.txt names.txt
                                                                test.txt
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat female
                                                                             17:25:50
cat: female: No such file or directory
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > cat female.txt
                                                                             17:25:56
Natalie, Portman, Actress, 42,
Marie, Curie, Scientist, 50,
~/L/C1/0/Do/I/SEM6/PHY47/P/bash_problems > cat names.txt
                                                                             17:26:00
Marie, Curie, Scientist,
Albert, Einstein, Scientist,
Tom, Hanks, Actor,
Natalie, Portman, Actress,
Elvis, Presley, Musician,
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > vim copy.sh
                                                                             17:26:25
~/L/C1/O/Do/I/SEM6/PHY47/P/bash_problems > ./copy.sh
                                                                     1m 24s 17:29:58
copying : example1.txt
copying : example2.txt
copying : female.txt
copying : names.txt
```

copying : test.txt

| ~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > cat example1-copy.txt Albert, Einstein, Scientist, 60, M Tom, Hanks, Actor, 55, M | 17:30:02 |
|--|----------|
| ~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > cat names.txt Marie, Curie, Scientist, Albert, Einstein, Scientist, Tom, Hanks, Actor, Natalie, Portman, Actress, Elvis, Presley, Musician, | 17:30:12 |
| ~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > cat names-copy.txt Albert, Einstein, Scientist, Tom, Hanks, Actor, | 17:30:17 |
| ~/L/Cl/O/Do/I/SEM6/PHY47/P/bash_problems > | 17:30:25 |