

```
basicsys@mars~>cd lec2
```

```
basicsys@mars~/lec2>ls
dir2  dir7  F2  FFF  lec2-2014.txt
```

```
basicsys@mars~/lec2>tree
```

```
.
|-- F2
|-- FFF
|-- dir2
|   |-- F1
|   `-- dir3
|       |-- F2
|       |-- dir4
|           |-- FFF1
|           |   `-- ff
|           `-- ff
|-- dir7
|   |-- FFF1
|   `-- ff
`-- lec2-2014.txt
```

4 directories, 10 files

```
basicsys@mars~/lec2>tree dir2
```

```
dir2
|-- F1
`-- dir3
    |-- F2
    |-- dir4
    |   |-- FFF1
    |   |   `-- ff
    |   `-- ff
    `-- ff
```

2 directories, 5 files

```
basicsys@mars~/lec2>cat dir2/dir3/F2
def
```

```
basicsys@mars~/lec2>pwd
/home/cs/segel/basicsys/lec2
```

```
basicsys@mars~/lec2>cat
/home/cs/segel/basicsys/lec2/dir2/dir3/F2
def
```

```
basicsys@mars~/lec2>cd dir2
```

```
basicsys@mars~/lec2/dir2>cat dir2/dir3/F2
cat: dir2/dir3/F2: No such file or directory
```

```
basicsys@mars~/lec2/dir2>cat
/home/cs/segel/basicsys/lec2/dir2/dir3/F2
def
```

```
basicsys@mars~/lec2/dir2>cat ~/lec2/dir2/dir3/F2
def
```

```
basicsys@mars~/lec2/dir2>cat ~basicsys/lec2/dir2/dir3/F2
def
```

```
basicsys@mars~/lec2/dir2>cd dir3; cat F2 ; cd ..
def
```

```
basicsys@mars~/lec2/dir2>tree
```

```
.
|-- F1
`-- dir3
    |-- F2
    |-- dir4
    |   |-- FFF1
    |   `-- ff
    `-- ff
```

```
2 directories, 5 files
```

```

basicsys@mars~/lec2/dir2>ls -l
total 8
drwx----- 3 basicsys basicsys 4096 Oct 26 10:04 dir3
-rw----- 1 basicsys basicsys  21 Oct 26 10:04 F1

basicsys@mars~/lec2/dir2>ls -l dir3
total 12
drwx----- 2 basicsys basicsys 4096 Oct 26 10:04 dir4
-rw----- 1 basicsys basicsys   4 Oct 26 10:04 F2
-rw----- 1 basicsys basicsys   4 Oct 26 10:04 ff

basicsys@mars~/lec2/dir2>ls -ld
drwx----- 3 basicsys basicsys 4096 Oct 26 10:04 .

basicsys@mars~/lec2/dir2>chmod o+rx F1

basicsys@mars~/lec2/dir2>ls -l F1
-rw----r-x 1 basicsys basicsys 21 Oct 26 10:04 F1

basicsys@mars~/lec2/dir2>chmod g+rx F1

basicsys@mars~/lec2/dir2>ls -l F1
-rw-r-xr-x 1 basicsys basicsys 21 Oct 26 10:04 F1

basicsys@mars~/lec2/dir2>chmod o-rx,g-rx F1

basicsys@mars~/lec2/dir2>ls -l F1
-rw----- 1 basicsys basicsys 21 Oct 26 10:04 F1

basicsys@mars~/lec2/dir2>ls -a
.  ..  dir3  F1

basicsys@mars~/lec2/dir2>ls -la
total 16
drwx----- 3 basicsys basicsys 4096 Oct 26 10:04 .
drwx----- 4 basicsys basicsys 4096 Oct 26 10:05 ..
drwx----- 3 basicsys basicsys 4096 Oct 26 10:04 dir3
-rw----- 1 basicsys basicsys  21 Oct 26 10:04 F1

```

```
basicsys@mars~/lec2/dir2>tree
```

```
.  
|-- F1  
`-- dir3  
    |-- F2  
    |-- dir4  
    |   |-- FFF1  
    |   `-- ff  
    `-- ff
```

2 directories, 5 files

```
basicsys@mars~/lec2/dir2>cp F1 dir3/F2 dir3/dir4
```

```
basicsys@mars~/lec2/dir2>tree
```

```
.  
|-- F1  
`-- dir3  
    |-- F2  
    |-- dir4  
    |   |-- F1  
    |   |-- F2  
    |   |-- FFF1  
    |   `-- ff  
    `-- ff
```

2 directories, 7 files

```
basicsys@mars~/lec2/dir2>rm dir3/dir4/F1  
dir3/dir4/F2
```

```
basicsys@mars~/lec2/dir2>tree
```

```
.  
|-- F1  
`-- dir3  
    |-- F2  
    |-- dir4  
    |   |-- FFF1  
    |   `-- ff  
    `-- ff
```

2 directories, 5 files

```
basicsys@mars~/lec2/dir2>cp -r dir3 dir5
```

```
basicsys@mars~/lec2/dir2>tree
```

```
.
|-- F1
|-- dir3
|   |-- F2
|   |-- dir4
|       |-- FFF1
|       |-- ff
|   |-- ff
|-- dir5
|   |-- F2
|   |-- dir4
|       |-- FFF1
|       |-- ff
|-- ff
```

```
4 directories, 9 files
```

```
basicsys@mars~/lec2/dir2>rm -r dir5
```

```
basicsys@mars~/lec2/dir2>tree
```

```
.
|-- F1
|-- dir3
|   |-- F2
|   |-- dir4
|       |-- FFF1
|       |-- ff
|-- ff
```

```
2 directories, 5 files
```

```
basicsys@mars~/lec2/dir2>cp -r dir3/dir4 .
```

```
basicsys@mars~/lec2/dir2>tree
```

```
.  
|-- F1  
|-- dir3  
|   |-- F2  
|   |-- dir4  
|   |   |-- FFF1  
|   |   |-- ff  
|   |-- ff  
|-- dir4  
|   |-- FFF1  
|   |-- ff
```

3 directories, 7 files

```
basicsys@mars~/lec2/dir2>cp -r dir3/dir4 dir4
```

```
basicsys@mars~/lec2/dir2>tree
```

```
.  
|-- F1  
|-- dir3  
|   |-- F2  
|   |-- dir4  
|   |   |-- FFF1  
|   |   |-- ff  
|   |-- ff  
|-- dir4  
|   |-- FFF1  
|   |-- dir4  
|   |   |-- FFF1  
|   |   |-- ff  
|   |-- ff
```

4 directories, 9 files

```
basicssystem@mars~/lec2/dir2>rm -r dir4
```

```
basicssystem@mars~/lec2/dir2>tree
```

```
.  
|-- F1  
`-- dir3  
    |-- F2  
    |-- dir4  
    |   |-- FFF1  
    |   `-- ff  
    `-- ff
```

2 directories, 5 files

```
basicssystem@mars~/lec2/dir2>mv F1 dir3/F2 dir3/dir4
```

```
basicssystem@mars~/lec2/dir2>tree
```

```
.  
`-- dir3  
    |-- dir4  
    |   |-- F1  
    |   |-- F2  
    |   |-- FFF1  
    |   `-- ff  
    `-- ff
```

2 directories, 5 files

```
basicssystem@mars~/lec2/dir2>mv dir3/dir4/F1 .
```

```
basicssystem@mars~/lec2/dir2>mv dir3/dir4/F2 dir3
```

```
basicssystem@mars~/lec2/dir2>tree
```

```
.  
|-- F1  
`-- dir3  
    |-- F2  
    |-- dir4  
    |   |-- FFF1  
    |   `-- ff  
    `-- ff
```

2 directories, 5 files

```
basicssystem@mars~/lec2/dir2>mv dir3/dir4 .
```

```
basicssystem@mars~/lec2/dir2>tree
```

```
.
|-- F1
|-- dir3
|   |-- F2
|   `-- ff
`-- dir4
    |-- FFF1
    `-- ff
```

2 directories, 5 files

```
basicssystem@mars~/lec2/dir2>mv dir4 dir3
```

```
basicssystem@mars~/lec2/dir2>tree
```

```
.
|-- F1
`-- dir3
    |-- F2
    |-- dir4
    |   |-- FFF1
    |   `-- ff
    `-- ff
```

2 directories, 5 files

Instructions on how to send e-mail

1) first form is as follows:

```
basicssystem@mars~>mail rotics6@gmail.com
```

```
Subject: hello
```

```
something bad
```

```
asddsas
```

```
.
Cc:
```


2) second form is to write the message in a file,
for example

FFF and then send the mail as follows:

```
basicsys@mars~/lec2>mail -s "hello"  
rotics6@gmail.com < FFF
```

3) third form is to write pine and then use it to
send and read e-mails.

pine is like pico and it is easy to learn how to
use it.

Instructions on how to transfer the e-mail you
get to other e-mails

Using pico you can create a file with name
.forward that will contain a list of e-mails
separated by comma and space. Every message
recieved to your e-mail in mars will be
transfered to these e-mails. If you want to keep
a copy of the e-mail you get on mars in your
e-mail in mars, write \login-name in the list of
e-mails.

Note that the .forward file must be at your home
directory!!!

For example the .forward file of ~rotics is as
follows:

```
rotics@mars~>cat .forward  
\rotics, rotics@netanya.ac.il
```

This means that every message rotics gets on his
e-mail on mars which is rotics@mars.netanya.ac.il
is transfered to the e-mail address
rotics@netanya.ac.il and a copy is kept
on the e-mail in mars of rotics.

```
basicsys@mars~/lec2/dir2>cat F1
abcd
efg
123
45
6789  10  20 abcd

basicsys@mars~/lec2/dir2>wc F1
 5  8 34 F1

basicsys@mars~/lec2/dir2>wc -l F1
5 F1
basicsys@mars~/lec2/dir2>wc -w F1
8 F1
basicsys@mars~/lec2/dir2>wc -c F1
34 F1
basicsys@mars~/lec2/dir2>wc -lw F1
 5  8 F1
basicsys@mars~/lec2/dir2>wc -L F1
17 F1
basicsys@mars~/lec2/dir2>wc -l < F1
5

basicsys@mars~/lec2/dir2>echo $x

basicsys@mars~/lec2/dir2>x=10

basicsys@mars~/lec2/dir2>echo x
x

basicsys@mars~/lec2/dir2>echo $x
10

basicsys@mars~/lec2/dir2>read x
123

basicsys@mars~/lec2/dir2>echo $x
123

basicsys@mars~/lec2/dir2>echo ${5+8}
13
```

```
basicsys@mars~/lec2/dir2>echo ${x+8}
131
```

```
basicsys@mars~/lec2/dir2>cat P1
read x
read y
echo ${x+$y}
```

```
basicsys@mars~/lec2/dir2>P1
10
20
30
```

```
basicsys@mars~/lec2/dir2>cat P1
read x
read y
echo ${x+$y}
```

```
basicsys@mars~/lec2/dir2>cat F3
100
200
```

```
basicsys@mars~/lec2/dir2>P1<F3
300
```