

Introduction to Directories



- Think of
 - File system as a building
 - Directory is a room
 - File is a desk
- The current working directory is the room you are.
- To find out where you are at any time

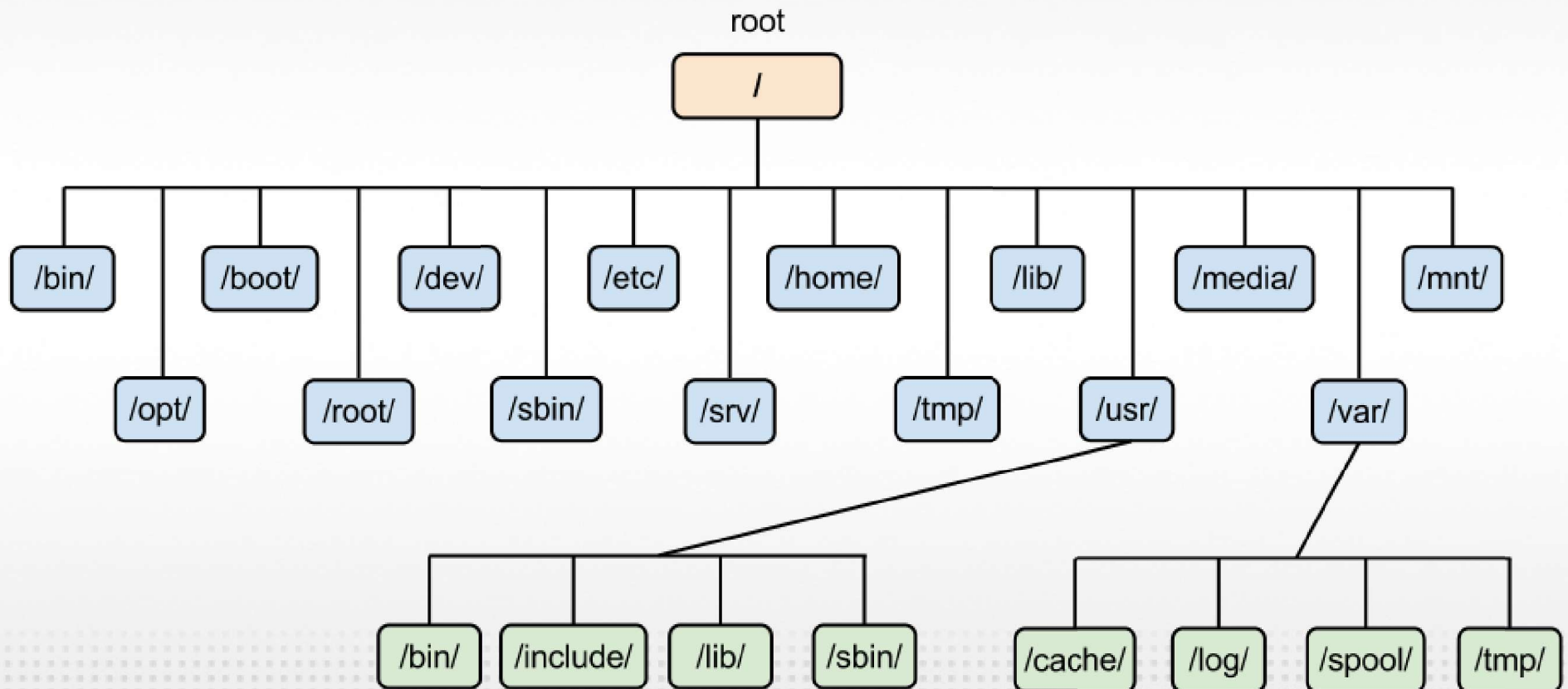
`pwd`

`/home/guest`

How Directories Work ?



OPEN SOURCE
DEPARTMENT



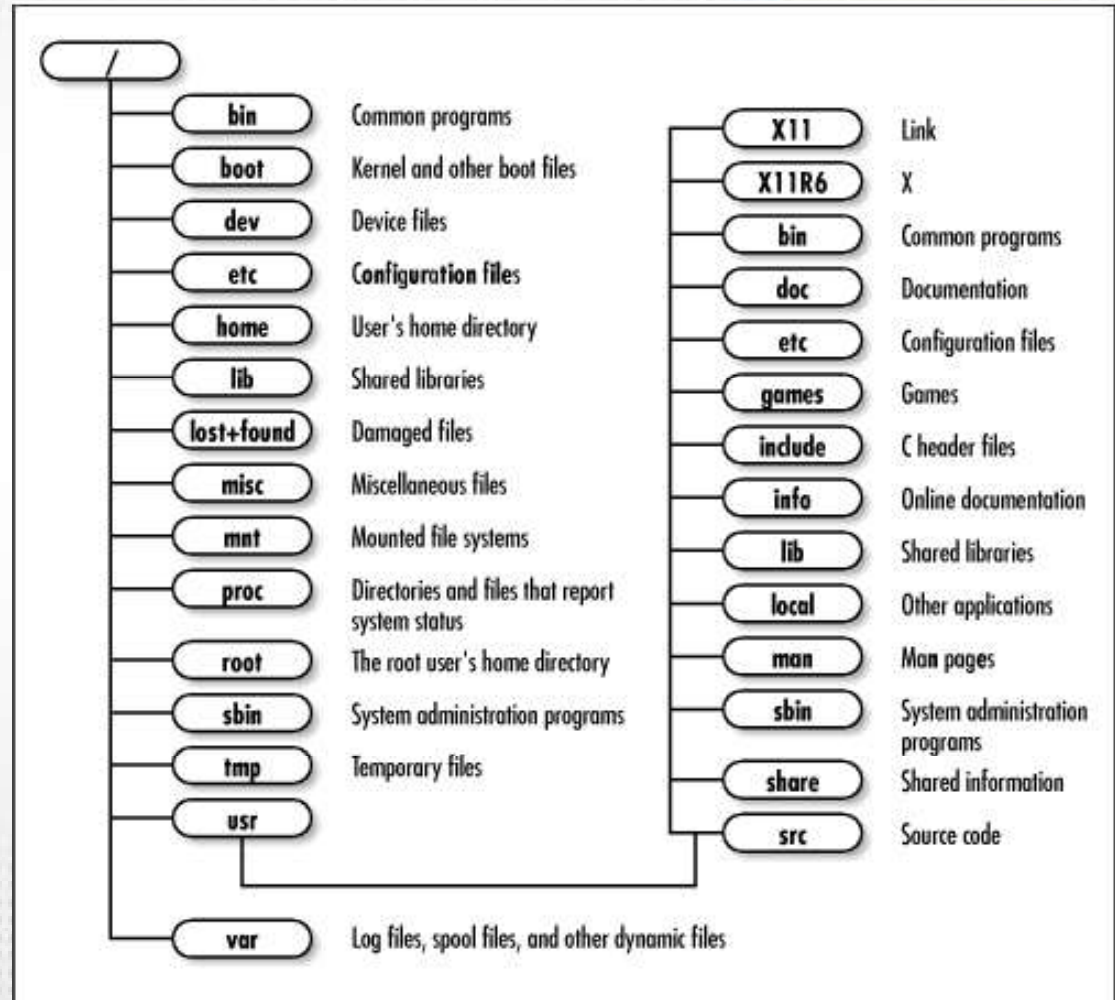
How Directories Work ?



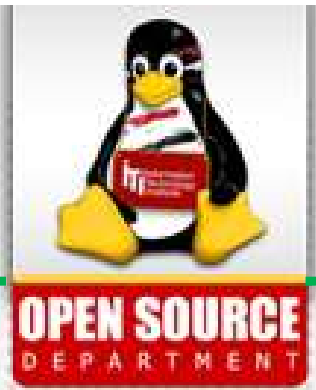
OPEN SOURCE
DEPARTMENT

- Pathnames

- Absolute pathname
- Relative pathname



Changing Directories



- To move from directory to directory on the system

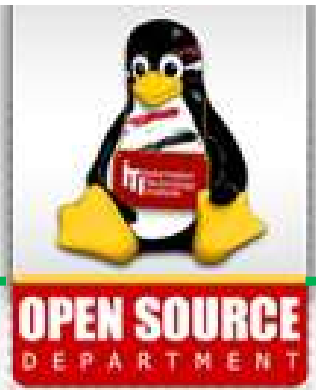
```
cd /home/user1/work
```

```
cd ..
```

```
cd ~
```

```
cd -
```

Listing Directory Contents



```
ls
```

```
dir1      dir2      file1
```

```
dir3      file2      file3
```

```
ls /home/user1/dir1
```

```
f1        f2
```

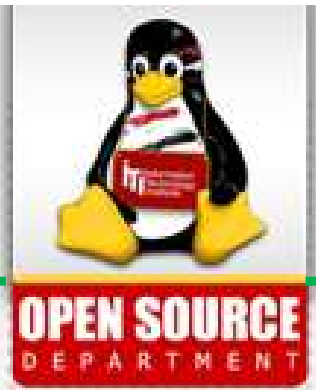
```
pwd
```

```
/home/user1
```

```
ls dir1
```

```
f1        f2
```

File Naming



- File names may be up to 255 characters.
- Avoid special characters as >< ? * # '
- File names are case sensitive

Viewing File Content



```
cat fname
```

```
more fname
```

- Scrolling keys for the more command

- Spacebar: moves forward on screen
- Return: scroll one line at a time
- b: move back one screen
- /string: search forward for pattern
- n: find the next occurrence
- q: quit and return to the shell prompt

```
head -n fname
```

```
tail [-n|+n] fname
```

File and Directory Manipulation



- Coping Files and Directories

`cp options source(s) target`

Option	Description
-i	Prevents you from accidentally overwriting existing files or directories
-r	Copy a directory including the contents of all subdirectories

File and Directory Manipulation



- Moving and Renaming Files and Directories

`mv options source(s) target`

Option	Description
<code>-i</code>	Prevents you from accidentally overwriting existing files or directories

File and Directory Manipulation



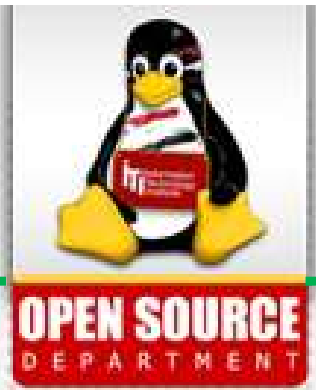
- To create files

```
touch file(s)_name
```

- To create directories

```
mkdir [-p] dir(s)_name
```

File and Directory Manipulation



- To remove files

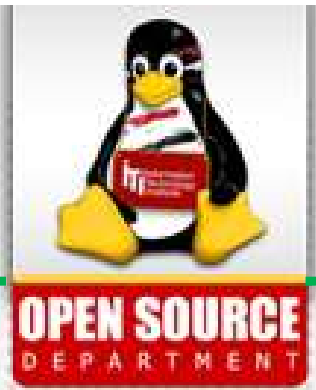
```
rm [-i] file(s)_name
```

- To remove directories

```
rmdir dir(s)_name
```

```
rm [-r] dir(s)_name
```

Listing Directory Contents



```
ls -l dir1
```

```
total 2
```

```
-rw-r--r-- 1 islam islam 20 2 May 21 16:11 f1
```

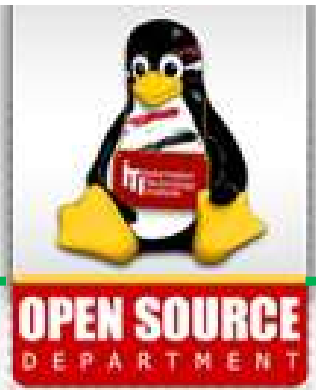
```
-rw-r--r-- 1 islam islam 20 0 May 21 16:11 f2
```

```
ls -a dir1
```

```
.          .f1  f1
```

```
..         .f2  f2
```

How Directories Work ?



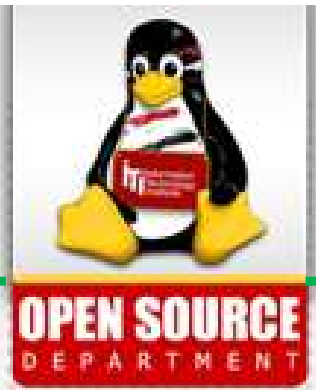
- Pathnames

- Absolute pathname
- Relative pathname

Files names beginning with '.' are hidden files. To show hidden files select :

- Press <Ctrl>+H
- From view options > Show Hidden Files.

Changing Directories



- To move from directory to directory on the system

```
cd /home/user1/work
```

```
cd ..
```

```
cd ~
```

```
cd -
```

File Globing



- When typing commands, it is often necessary to issue the same command on more than one file at a time.
- The use of wildcards, or “**metacharacters**”, allows one pattern to expand to multiple filenames

Metacharacters



- Asterisk(*): represents 0 or more character, except leading (.)

Example:

```
ls f*
```

```
file.1 file.2 file.3 file4
```

```
file1 file2 file3 fruit
```

```
ls *3
```

```
file.3 file3
```

```
dir3
```


Metacharacters



- Question mark(?) character represents any single character except the leading (.)

Examples

```
ls file?
```

```
file4 file1 file2
```

- Square bracket([]): represent a range of characters for a single character position.

Example

```
ls [a-f]*
```

```
ls [pf]*
```

Metacharacters



```
ls -a
```

```
. .. .profile abm bam bat battle project
```

```
ls -l b*
```

```
-rw-r----- 1 sgs 16 Feb 12 11:04 bam
```

```
-rw-r----- 1 sgs 12 Feb 12 11:05 bat
```

```
-rw-r----- 1 sgs 19 Feb 12 11:06 battle
```

```
ls *
```

```
abm bam bat battle project
```

```
ls .*
```

```
. .. .profile
```

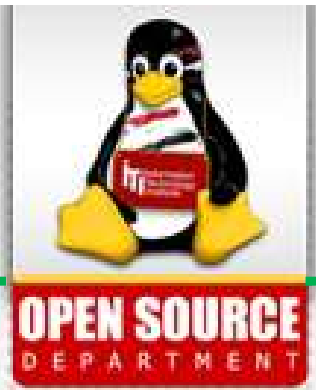
```
ls *m
```

```
abm bam
```

```
ls *a*
```

```
abm bam bat battle
```

Metacharacters



```
ls ???
```

```
abm bam bat
```

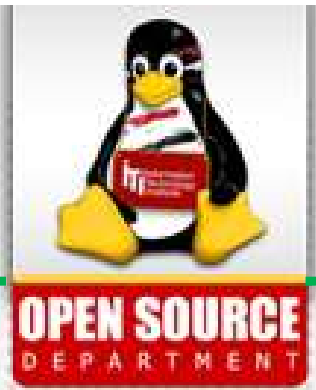
```
ls ?a?
```

```
bam bat
```

```
ls ?a*
```

```
bam bat battle
```

Metacharacters



`ls [ab]*`

abm bam bat battle