



# Linux: Basic Commands

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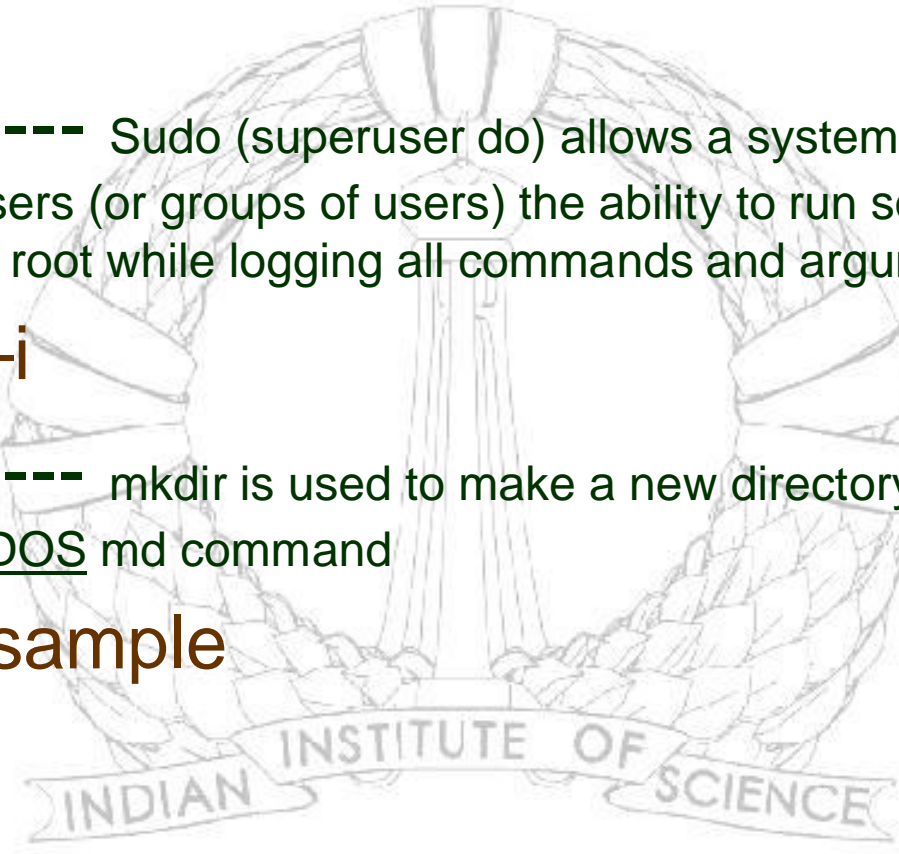
[siva@dharmaganja.ncsi.iisc.ernet.in](mailto:siva@dharmaganja.ncsi.iisc.ernet.in)



# Linux Basic Commands

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- **sudo** --- Sudo (superuser do) allows a system administrator to give certain users (or groups of users) the ability to run some (or all) commands as root while logging all commands and arguments  
**# sudo -i**
- **mkdir** --- mkdir is used to make a new directory. The command is similar to the DOS md command  
**– mkdir sample**





# Linux Basic Commands

- `cd` --- `cd` command will allow you to change directories
- To navigate into the root directory, use "`cd /`"
- To navigate to your home directory, use "`cd`" or "`cd ~`"
- To navigate up one directory level, use "`cd ..`"
- To navigate to the previous directory (or back), use "`cd -`"
  - `cd sample`
- `vim` --- `vim` is a very powerful text editor
  - `vim sample.txt`
- Save & Quit in vim command
  - `Esc + : + w + q`
  - `:wq`

# Linux Basic Commands

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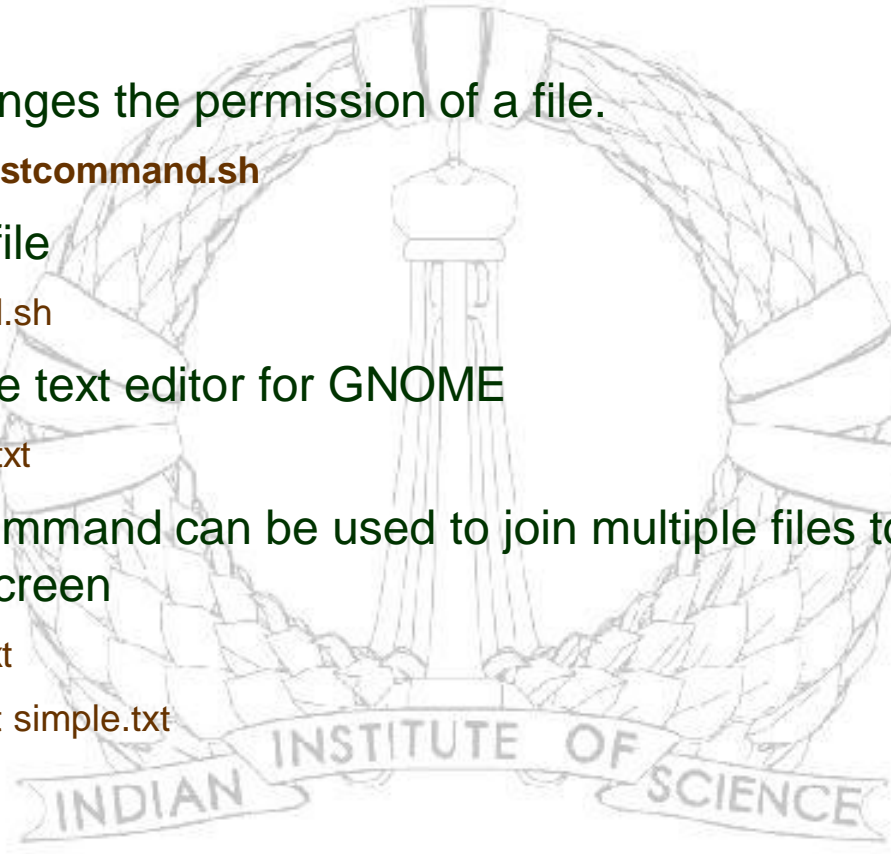
- **ls** --- **ls** command will show the files in current directory
  - **ls**
  - **ls -l**
  - **ls -a**
- **pwd** (print working directory ) --- **pwd** command will allow to know in which directory currently located
  - **pwd**
- **cp** --- **cp** command will make a copy of a file
  - **cp sample.txt sample.sh**
- **mv** --- **mv** command will move a file to a different location
  - **mv sample.sh listcommand.sh**



# Linux Basic Commands

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- `chmod` --- Changes the permission of a file.
  - `chmod a+x listcommand.sh`
- Execute shell file
  - `./listcommand.sh`
- `gedit` --- simple text editor for GNOME
  - `gedit simple.txt`
- `cat` --- **cat** command can be used to join multiple files together and print the result on screen
  - `cat sample.txt`
  - `cat sample.txt sample.txt`





# Man is your FRIEND(Manual)

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- Use manuals which gives more information about most commands
- For example,  
    \$ man ls  
    Alternatively,  
    \$ whatis date





# Linux Basic Commands

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- `rm ---` remove a file
  - `rm simple.txt`
- `grep 'keyword' file` search a file for keywords
  - `grep sample.txt`
- `wc file` count no. of lines/words/chars in file
  - `wc sample.txt`
- `rm -r directory` remove a directory
  - `cd ..`
  - `rm -r sample`

# Ways for Installing an Application

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- synaptic manager
  - Graphical management of software packages
- aptitude
  - High-level interface to the package manager
- apt-get
  - Package handling utility
- dpkg
  - Install debian/ubuntu binary packages (.deb)





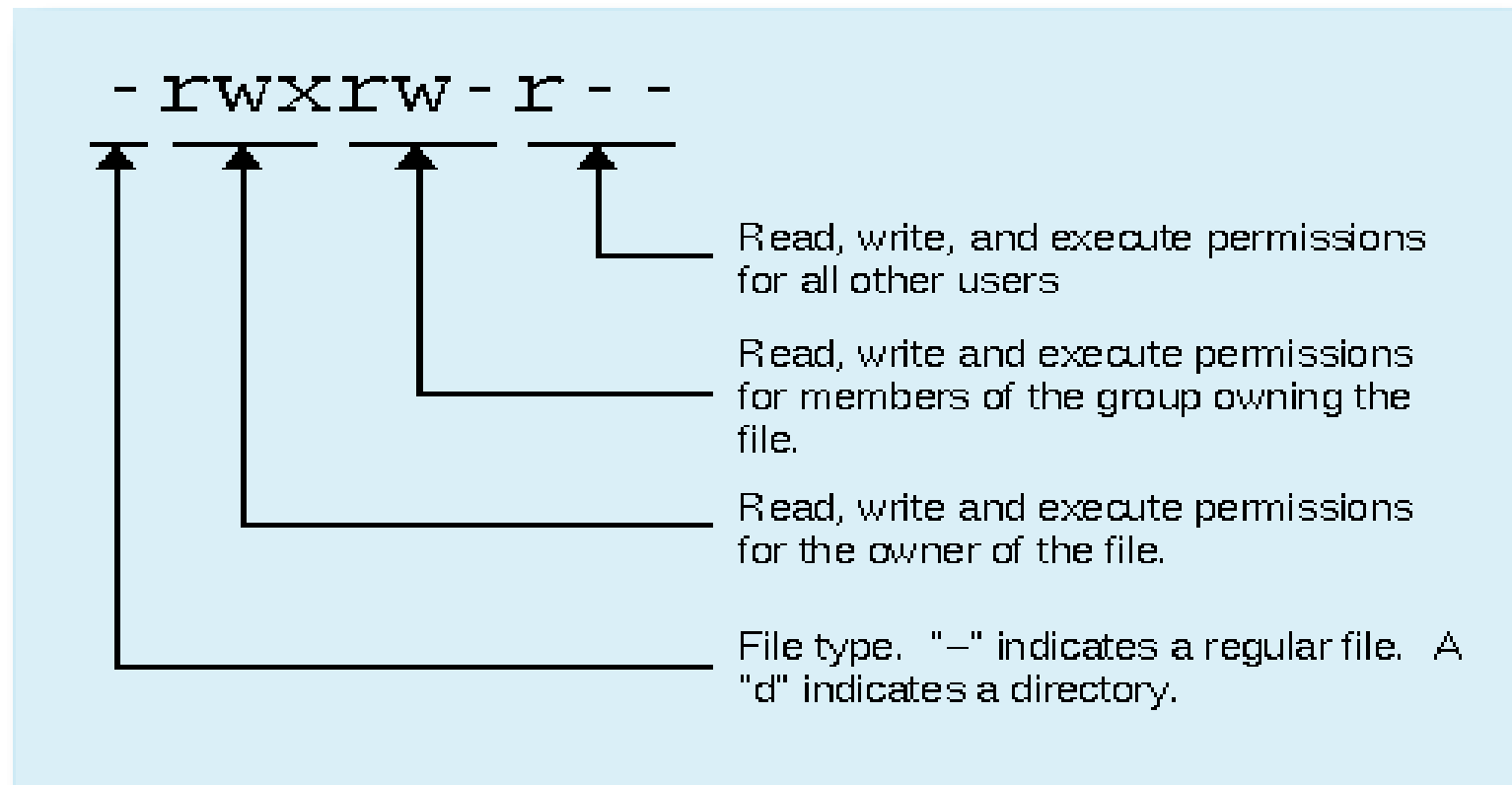
# Download packages using wget

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- The non-interactive network downloader
- Download packages as well files from the Internet and local sites.
  - `wget http://<domain-name>/package.deb`
  - `wget ftp://<domain-name>/package.deb`
- Edit `/etc/wgetrc` to set your proxy (Or)
- Set environment variable as  
`export http_proxy="iiscproxy.serc.iisc.ernet.in:3128"`

# File permissions

- **chmod**



# File permissions

- **chmod**

**rwX** = 111 in binary = 7

**rw-** = 110 in binary = 6

**r-x** = 101 in binary = 5

**r--** = 100 in binary = 4

**Example:**

**chmod ugo+rwX <filename> (Or)**

**chmod 700 <filename/directory>**

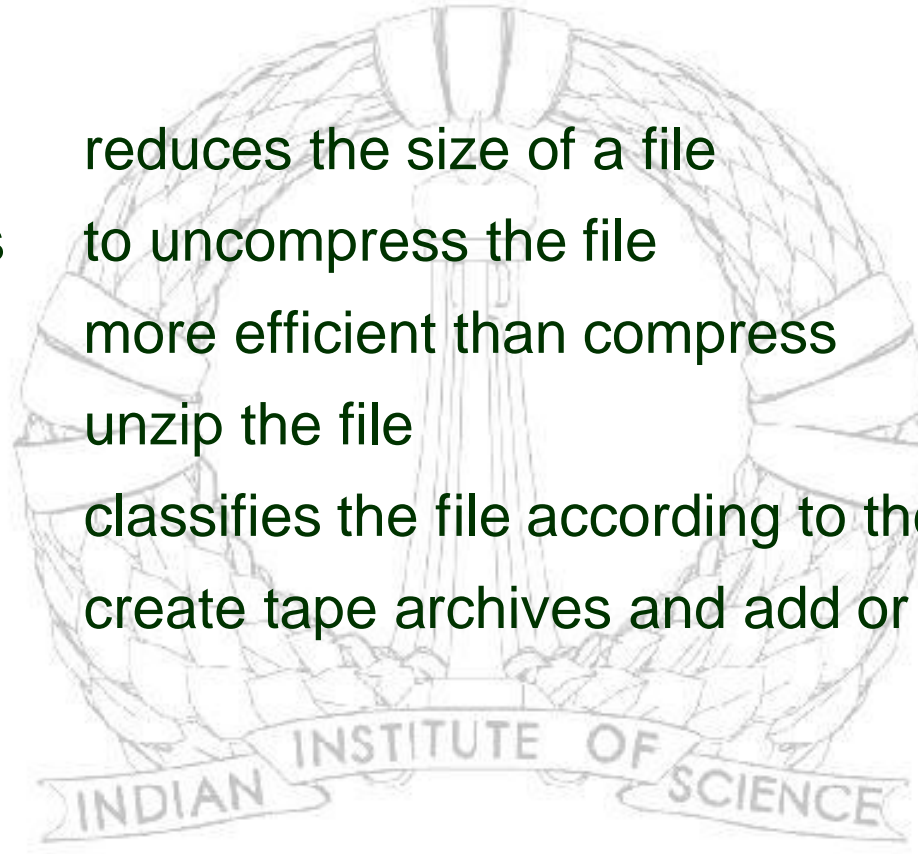
URL: <http://peter.fugl.name:81/linuxdoc/linuxcommand.org/lts0070.html>



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- `compress` reduces the size of a file
- `uncompress` to uncompress the file
- `gzip` more efficient than `compress`
- `unzip` unzip the file
- `file` classifies the file according to the type of data
- `tar` create tape archives and add or extract files





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- `history` keeps a list of all the commands that entered
- `.bashrc` user-specific init file, in each user's home dir
- `.bash_history` commands you enter are saved
- `tar` The GNU version of the tar archiving utility
- `gunzip` compress or expand files
- `Locate` find files by name
- `find` search for files in a directory hierarchy
- `whereis` locate the binary, source, and manual page files
- `pgrep` look up or signal processes based on name  
(see also `ps` command)



# Linux Environment Variables

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Print the Environment variables,

# `echo $USER`

- USER (your login name)
- HOME (the path name of your home directory)
- HOST (the name of the computer you are using)
- ARCH (the architecture of the computers processor)
- PATH (the directories the shell should search to find a command)



# Conclusion

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In this session a few basic Linux commands on Ubuntu which are usually used while installing software are discussed.

Installation of Ubuntu 8.04 will be discussed on the last day.

Till then.....take care

