



# Linux : Get your feet wet

Bridge Course '19

EE Dept IITB

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# Outline

- 1 Introduction
  - What is Linux
  - Why Linux
- 2 Linux Basics
  - Linux File System
- 3 Some L<sup>A</sup>T<sub>E</sub>X Examples
  - Tables and Figures
  - Mathematics

Linux is a family of open source Unix-like operating systems based on the Linux kernel,  
Typically packaged in a Linux distribution



# Why Linux



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  - 4 Top 100 fastest supercomputers run linux
  - 5 Almost all tech giants funds linux development

# Why Linux ctd..



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1 Free



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- 2 Sabko Cadence chalana he

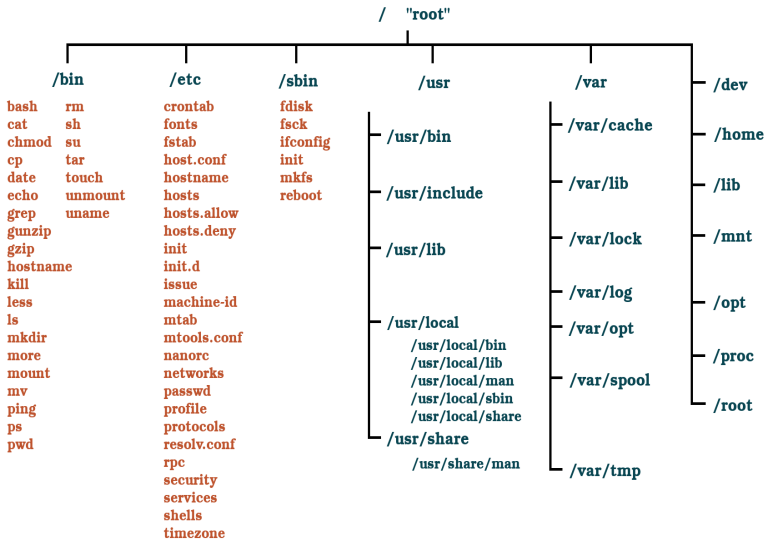
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- 1 Free
- 2 Sabko Cadence chalana he
- 3 Friends urge friends to use windows
- 4 Microsoft gives you windows. Linux gives you whole house

# File System Hierarchy



# Linux File System: Basic commands



## Note

use : `man <command>` - to get the full details regarding any command



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1 `ls` - list the files the current directory

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# Linux File System: Basic commands

- 1 `ls` - list the files the current directory
- 2 `pwd` - print the working directory
- 3 `touch <file_name>` - create an empty file
- 4 `mkdir <dir_name>` - create a directory

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# Linux File System: Basic commands

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- 2 `pwd` - print the working directory
- 3 `touch <file_name>` - create an empty file
- 4 `mkdir <dir_name>` - create a directory
- 5 `cd` - change directory

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use : `man <command>` - to get the full details regarding any command

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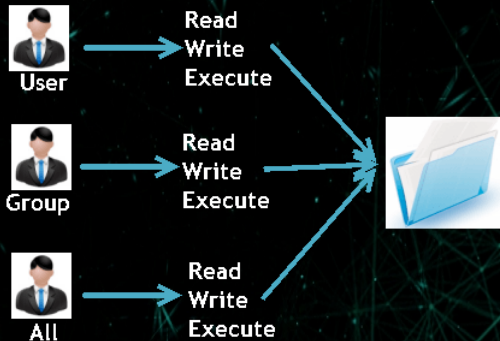
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For each file, permissions are given in three categories.

# Users, Group and Permissions

Owners assigned Permission On Every File and Directory



USER|GROUP|ALL .

RWX-RWX-RWX

# Tables and Figures

- Use `tabular` for basic tables – see Table 1, for example.
- You can upload a figure (JPEG, PNG or PDF) using the files menu.
- To include it in your document, use the `includegraphics` command (see the comment below in the source code).

Item	Quantity
Widgets	42

# Readable Mathematics

Let  $X_1, X_2, \dots, X_n$  be a sequence of independent and identically distributed random variables with  $E[X_i] = \mu$  and  $\text{Var}[X_i] = \sigma^2 < \infty$ , and let

$$S_n = \frac{X_1 + X_2 + \dots + X_n}{n} = \frac{1}{n} \sum_{i=1}^n X_i$$

denote their mean. Then as  $n$  approaches infinity, the random variables  $\sqrt{n}(S_n - \mu)$  converge in distribution to a normal  $\mathcal{N}(0, \sigma^2)$ .