Processes

Go through the basic concepts about the system processes and the command to get their status.

> A **process** is a running instance created when a program or a software system is initiated. They can be perceived as programs in action. Processes are often referred as *tasks*.

PID:

Every process has a unique identifier assigned to it at the time of its creation, known as **PID** (*process identifier*).

PPID:

Every process id spawned by its parent process. The **PID** of its parent is called as **PPID**.

ps

Definition:

Short for **"process status"**, the command `ps` gives the status and information about the currently running processes along with their **PID's** (process identification numbers).

Syntax:

```
ps [options]
```

Options:

Option	Description

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`-A`	Select all processes. Identical to `-e`.
`-d`	Select all processes except session leaders.
`r`	Restrict the selection to only running processes.
`p pidlist` OR `-p pidlist` OR `--pid pidlist`	Select by process ID.
`--ppid pidlist`	Select by parent process ID.
`-s sesslist` OR `--sid sesslist`	Select by session ID.

Example:

- To see every process running on the system, using the standard syntax:

```
ps -e
```

- To display a process tree:

```
ps -ejh
```

- Print only the name of process ID 21:

```
ps -p 21 -o comm=
```