

# Shell Programming

A Necessity for all Programmers

## Handling Processes

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# You will learn to ...

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- Handle processes

- Command/Script
- Instance of a running program
- 5 digit number (0 ... 32,767)
- Operations
  - List
  - Kill
  - Switch to background/foreground

- Process status
- **ps**: Displays parent ID, time, command
- **ps -f**: Full format listing

- Default
- Command/Script
- Output to screen/file
- Cannot run any other command till the current one completes
- Examples
  - **ls**
  - **sleep 1m** (d, h, m, s)
  - **read name**
  - **ls > listOfFiles.txt**

- Runs in background
- Can start multiple processes
- Add & at the end of the command/script
- Displays job ID and process ID
- Once done, displays job status
- Examples
  - **ls &**
  - **sleep 1m &** (d, h, m, s)
  - **read name &** — Process will be suspended

# Move Process – Background to Foreground

- **fg**
- Moves most recent suspended/moved to background process
- Moves particular job in foreground: **fg % jobID**

# Move Process – Foreground to Background

- Suspend current foreground process
- Ctrl + Z
- Resume the process in background: **bg**
- Moves the most recent suspended process to background
- Move particular job in background: **bg % jobID**



- Kills/Terminates a process
- **kill processID**
- Forcefully: **-9**

# Now, you can ...

- Understand process status
- Initiate a process: Background or foreground
- Toggle background and foreground process
- Kill a process

# Thank you

