

DAY 02 - LINUX NETWORKING & BASH

1. Network Interface

- A **network interface** connects a computer to a network.
- It can be physical (like an Ethernet port) or virtual (like `lo`, the loopback interface).
- **Example (List interfaces):**

```
ip link show
```

2. IPv4 vs IPv6

- **IPv4:**
 - 32-bit address
 - Format: 192.168.0.1
 - ~4.3 billion addresses
- **IPv6:**
 - 128-bit address
 - Format: 2001:0db8:85a3::8a2e:0370:7334
 - Virtually unlimited addresses
- **Example (Check IP):**

```
ip a
```

3. Bash File Execution Methods A bash script can be executed in three different ways:

1. Direct Execution (if executable):

2. `chmod +x script.sh`
- `./script.sh`

3. Using bash command:

```
bash script.sh
```

4. Using source or dot (.):

5. `source script.sh`
6. # or
- `. script.sh`