In Linux, runlevels are predefined states or modes that define the behavior of the system, specifically the set of processes that should be running. They help determine which services and processes are enabled at boot time. Although the concept of runlevels is associated with the older SysVinit system, they are still relevant in many Linux distributions, especially for backward compatibility, though newer systems may use systemd (which has its own set of targets).

Here are the standard runlevels in Linux:

Runlevel 0: Halt

- The system is shut down and powered off. No processes are running.

Runlevel 1: Single-user mode

- The system boots into a single-user environment, often for maintenance and repair tasks.
- Networking and multi-user functionality are typically disabled.

Runlevel 2: Multi-user mode without networking

- The system allows multiple users but does not start networking services.
- This is commonly used for systems that do not require network access.

Runlevel 3: Multi-user mode with networking

- The system starts up in multi-user mode with full networking enabled.
- This is a common mode for servers without a graphical user interface (GUI).

Runlevel 4: Unused/Custom

- Runlevel 4 is generally not defined in many Linux distributions.
- It is often left unused but can be customized for specific purposes.

Runlevel 5: Multi-user mode with graphical user interface (GUI)

- The system starts with networking and a graphical user interface (GUI).
- This is the standard runlevel for most desktop systems that use a graphical login manager.

Runlevel 6: Reboot

- The system will reboot and restart the machine.
- This is the "reboot" state, essentially a soft shutdown followed by restarting the system.