



Shell Scripting in LINUX

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What is Kernel?

The kernel is a computer program that is the core of a computer's operating system, with complete control over everything in the system. It manages the following resources of the Linux system –

- File management
- Process management
- I/O management
- Memory management
- Device management etc.

What is Shell?

A shell is a special user program that provides an interface for the user to use operating system services. Shell accepts human-readable commands from users and converts them into something which the kernel can understand. It is a command language interpreter that executes commands read from input devices such as keyboards or from files. The shell gets started when the user logs in or starts the terminal.

Shell is broadly classified into two categories –

- Command Line Shell
- Graphical shell

A program which is responsible for providing an interface to a user so that he/she can access the shell. It basically allows users to enter commands and see the output of those commands in a text-based interface. Large scripts that are written to automate and perform complex tasks are executed in the terminal.

Shell Scripting

Usually, shells are interactive, which means they accept commands as input from users and execute them. However, sometimes we want to execute a bunch of commands routinely, so we have to type in all commands each time in the terminal.

As a shell can also take commands as input from file, we can write these commands in a file and can execute them in shell to avoid this repetitive work. These files are called **Shell Scripts** or **Shell Programs**

Some Advantages of shell scripts

- The command and syntax are exactly the same as those directly entered in the command line, so programmers do not need to switch to entirely different syntax
- Writing shell scripts are much quicker
- Quick start
- Interactive debugging etc.