

Hello, everyone! let's understand one of the most important topics of Linux OS, Shell programming, a programming language used to execute scripts in Linux OS.

Shell can read a list of commands as input from a file and can execute them in a sequence to avoid repetitive work. These files containing commands are called **Shell Scripts** or **Shell Programs**. Shell scripts are similar to the batch file in MS-DOS. Each shell script is saved with **.sh** file extension e.g. **myscript.sh**

A shell script has syntax just like any other programming language. If you have any prior experience with any programming language like Python, C/C++ etc., you may be very comfortable with shell scripting.

Shell scripts are most commonly used piece of codes for security professionals and researchers to avoid repetitive work, perform tasks automatically such as to do routine backups, Monitor the system and incorporating additional features into the shell. The ethical hackers write shell scripts to automate the complete attack and try them to perform penetration testing also.

Let's learn some basics of writing shell scripts. The first thing you should know about is she- Bang. Each shell script

starts with a sign `#!` called as she-bang and is written at top of the script. It passes instruction to program `/bin/sh`.

To run your script in a certain shell (supported by your system), start your script with she-bang followed by the shell name such as `/bin/bash` for bash shell.

A shell script is written with the following pieces.

Shell keywords such as *if*, *else*, and *break*

Shell commands such as *cd*, *ls*, *echo*, *PWD*, and *touch*

Functions and

Control flow such as *If...then...else*, *case* and shell loops

There are many advantages of using shell scripts such as
The programmer does not need to move to a different syntax because the command and syntax are identical to those typed directly on the command line. Similarly

Shell scripts are much faster to write than Java scripts and anyone having some programming knowledge may Get started quickly and It allows debugging in real time.

In the next video, you will learn about writing and executing shell scripts.

Thank You...