

UNIX Fundamentals & Shell Programming

Synopsis & Objective of Course

UNIX (& its variants) is by far the most preferred Operating System in the industry today. This training module is intended to provide a fair knowledge of the OS concepts & gain sharp skills in Shell programming. This is achieved by mastering the usage of commands & covering in-depth programming using scripts. Starting from basic command set, trainees gain good proficiency even in advanced concepts such as awk, sed, etc.

Target Audience

Programmers and developers who wish to use UNIX/Linux platform for programming & learn the art of shell scripting.

Prerequisites

Attendees should have a basic knowledge of programming and computers. Previous knowledge of any language is helpful but not essential.

Delivery

The training will be instructor led, with each section of the material being covered by the trainer and followed by hands-on practical exercises. Certain implementation oriented projects will be given as assignments (under complete guidance) which will help trainee gain a command over shells.

Duration : 3 days

Course Contents

Day	Topic	Sub topics
Day 1	Introduction to unix OS	Operating System, History of UNIX, Features of UNIX, Layered Unix Architecture, Kernel, The Shell, Process Management, File Management, File System, File System structure.

	Unix Commands	<p>Pwd, Ls, Date, Who,Man, Metacharacters, Cat, Mkdir, Rmdir, Rm, Chmod, Umask, Cp, Mv, Chown, Chgrp, Softlink and hardlink (ln), Echo, Touch, More, File, Wc, Cmp, Find, Sort, Cut, Head, Tail, Tr, Paste, telnet, ftp. Tar, Gzip, Gunzip. Ps, Kill, Sleep, Bg, Fg, Jobs, Nice, Nohup. Nice</p>
Day2	Shell programming	<p>Flavours of unix shell, Command processing, Shell features, Different shells, C shell, K shell, Bash shell, Sample shell script, Executing a shell script. Shell variables, User defined variables, Read only variables, Environmental variables, Passing parameters to the script, Arithmetic operations in shell script, Using test command, Combining conditions, Condition checking in script, If, Else, Elif, For loop, While loop, Until loop, Case statement, Functions in shell script, Debugging a shell script, Exercises.</p>

Day 3	Advanced Shell Programming. Sed	Sed gap between lines, Sed substitution, Sed multiple commands, Sed commands in a file, Sed adding records, Sed deleting records.
	AWK	Review 1 of AWK principle, Running an AWK program, Sample output from AWK, Structures of AWK program, Pattern action pair, BEGIN and END, Selection and Data validation, Regular expression in AWK program, Arrays, Flow control in AWK, Loop control in AWK, String concatenation, Command line Arguments, Getline functions, AWK as a filter, Built-in functions.

Trainers' Profile

Corporate Trainer(s) with more than 6 years of experience in embedded development & corporate training in CMM level5 companies.

Scheduled & On-site Training

Apart from in-house training programs, comprehensive training can be also provided as per the requirement & will be optimally customized as per the client's needs.

For training calendar, availability of seats & other details please mail us at training@sigmasolutions.co.in