UNIX Introduction

BlueMark Academy

Description

This UNIX introduction course is a fundamentals course, and an excellent introduction to using UNIX. The course will provide you with the skills necessary to become a confident, competent user. With a high practical content, this course gives ample opportunity to practice the concepts learned during the formal classroom sessions.

lThe practical sessions and labs are task based, and illustrate the real-life problems and challenges often encountered.

At the end of this course you will be able to:

- use UNIX documentation
- move around the UNIX directory structure
- create, copy and move files and directories
- understand UNIX file permissions
- use the vi editor
- list and control processes
- understand and use UNIX metacharacters
- use grep, cut, awk, sed and sort
- change login profiles.

Outline

Introduction and Orientation

- Introduction & objectives; A short history; Free UNIX; UNIX component; UNIX filesystem; Graphical Interfaces; Logging in; Logging out: text, graphical; UNIX command structure; Commands: user information, system information; Modifying user attributes; Communicating with users: Sending mail, Opening mail; Keyboard

sequences; Test your progress; Check your progress; Command summary.
Practical exercises.

Documentation

- Overview; Using man; The –help switch (Linux); Using info (Linux); /usr/share/doc; Web resources; Test your progress; Check your progress.
  Practical exercises.

Files & Directories

- What are files and directories?; What file types are there?; Directories; Pathnames; Important directories; Moving around; Using ls; Creating & removing directories; Copying files and directories; Moving/renaming files & directories; Displaying text files; Displaying file information; The find command; Links; Test your progress; Check your progress; Command summary.
  Practical exercises.

Permissions

- Users and groups; Permission concept; chmod; chown & chgrp; umask; Test your progress; Check your progress; Command summary.
  Practical exercises.

Shell metacharacters

- What is a metacharacter?; Wildcards; Redirection; Variables; Using pipes; Quoting; Command substitution; Test your progress; Check your progress; Metacharacter summary.
  Practical exercises.

Processes

- Process priorities; Listing processes; Using kill; Using pkill (if supported); Bash shell job contro; Test your progress; Check your progress; Command summary.
  Practical exercises.

Advanced Utilities

- grep; Regular expressions; Using cut; The awk command; sed; Using sort; Putting it together; Test your progress; Check your progress; Command summary.

Practical exercises.

Initialisation scripts

- Aliases; Functions; Using set; Shell variables; Exporting variables; Initialisation scripts; $HOME/.profile or $HOME/.bash_profile; $HOME/.kshrc; Scripts for other shells; Test your progress; Check your progress; Command summary; File/Directory summary.
  Practical exercises.

Using vi

- Command mode; Insertion; Deletion; Replacing; Copy/cut and pasting; Movement; Searching; Miscellaneous; Exiting vi; Customising vi; Test your progress; Check your progress; Command summary.
  Practical exercises.

Prerequisites

Basic IT exposure is assumed.