UNIX AND SHELL PROGRAMMING

For Engineering Students

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PREFACE

Many titles are available with the title "UNIX and Shell Programming". Majority of them discusses about Bourn shell. Also, most of them explain about little about shell programming. In this book, we have given emphasis to popular shells known as Bourn Shell, C shell, and Korn shell. Many worked out shell programs included.

First chapter introduces the user to fundamental aspects of general operating systems. It explains about the chronological development of UNIX and Linux. Benefits of Linux over other UNIX variants are highlighted. UNIX directory tree is explained in detail. Also, first commands such as cat, man are explained.

Simple UNIX commands such as passwd, cd, mkdir, pwd, rmdir, cp, mv, rm, etc., are explained with live examples. Most useful options of each of the command are explained with practical examples.

A chapter on wildcards, quoting, redirection, etc., explains the behavior of the shell while working with user's commands. The discussion is carried out in a generic way.

Chapter four discusses about the editors such as vi, emacs which are in wide use under UNIX. Use of vi and emacs are explained with illustrative examples. Most commonly required options are explained with each editor.

A chapter on searching explains the means of locating files in our file systems. Commands such as locate, whatis, type, and find are explained. The find command and its flexibility are explained with live examples. Also, how the output of find command can be used for system administration is explained.

A separate chapter on file filters explains the use of file processing commands such as: nl, grep, sort, uniq, paste, cut, split, join, etc. All the commands are explained with simple practical examples.

We have included a separate chapter to emphasize how one can create new commands by joining the available UNIX commands. Live examples are included which explains the use of piping. Also, use of alias command for creating new commands is explained.

A separate chapter on awk is included so as to explain the versatility of the awk command. Practical examples are included which explains most of the facilities available in awk.

Process management under Linux is explained in a separate chapter. The concept of background and foreground jobs is explained with live examples. Also, a brief introduction to signals is included.

Internet related commands are explained in a separate chapter. Commands such as ping, telnet, rlogin, mail, finger, etc., are explained in a lucid manner.

Shell Programming using Bourn shell is included in a separate chapter. Live examples are included to explain shell program development. Also, this chapter included the discussion on Bourn Again shell, a variant of Bourn shell.

Last two chapters discusses about Korn and C shells in comparison to Bourn shell. With all the three shells, ready to run programs are used.

—Author

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