

**Chapter 1: Introduction**

You will learn:

- Features and facilities of the UNIX operating system.
- Operating system components.
- UNIX-variants.
- UNIX as a multi-user and multi-tasking operating system.
- UNIX file system concepts.
- UNIX design philosophy.
- Running commands.
- Networking.
- System start up.

**Chapter 2: Commands and Utilities**

You will learn:

- UNIX help system.
- UNIX file system and directories.
- How to perform standard operations on files and directories.
- Directory and file permissions - commonly used.
- How to run common UNIX commands and utilities - local and network.
- Commands - combining for command line interaction.
- Shell arguments and how they are processed by the shell.
- UNIX environment - scripting.
- Shell variables.

**Chapter 3: Files and Directories**

You will learn:

- UNIX file system structure.
- Setting file and directory permissions.
- File management and viewing commands.
- Interaction and job control.
- grep utility.
- Redirecting input and output.
- Pipelines and filters.

**Chapter 4: File System and Disk Administration**

You will learn:

- File system role and functions.
- Partitions.
- inode and superblock.
- Top level directories.
- File types.
- Character and block devices.
- Mounting and unmounting file systems.
- Disk space utilization.
- tar program - archiving utility.

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**Chapter 5: vi Text Editor**

You will learn:

- Editing a file - existing and new.
- Moving around in a file and the screen.
- Operating on lines.
- Moving, rearranging, and duplicating text.
- Searching, goto, and previous content.
- Low level character motions.
- High level text objects.
- Shell operations.
- Recovering lost lines and files.
- Line oriented patterns.

**Chapter 6: Execution Environment**

You will learn:

- Execution environment - purpose and function.
- Creation of the execution environment.
- Environment variables - viewing and setting.
- Shell selection and customization.
- User login scripts.
- Interactive use of the shell.
- Command-line editing.

**Chapter 7: Shell Programming**

You will learn:

- Shell programming - purpose and function.
- Shell commands.
- Shell variables.
- Shell arguments and quotes.
- Shell standard input and output.
- Standard device redirection operators.
- Command substitution.
- Shell positional parameters.
- Predefined special shell variables.
- Shell conditional tests.
- Shell scripts.
- Batch processing and UNIX scheduling priorities.

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**Chapter 8: Bourne Shell Programming**

You will learn:

- Shell programming purpose and features - Bourne shell.
- Interpreted versus compiled and linked programs.
- Variables.
- Parameters.
- Test command and testing.
- Flow of control and looping.
- Repeated actions commands.
- Functions.
- Trapping and wait: interprocess communication.
- Debugging.

**Chapter 9: Korn Shell Programming**

You will learn:

- Korn shell interaction.
- Korn Shell environment and system environmental variables.
- Programmable shell and job control.
- Conditional expressions and test command.
- Built-in commands.
- Command and file name substitution.
- Redirecting input and output.
- ksh programming.
- ksh flow of control.
- Redirection and pipes.
- Programming guidelines.

**Chapter 10: sed**

You will learn:

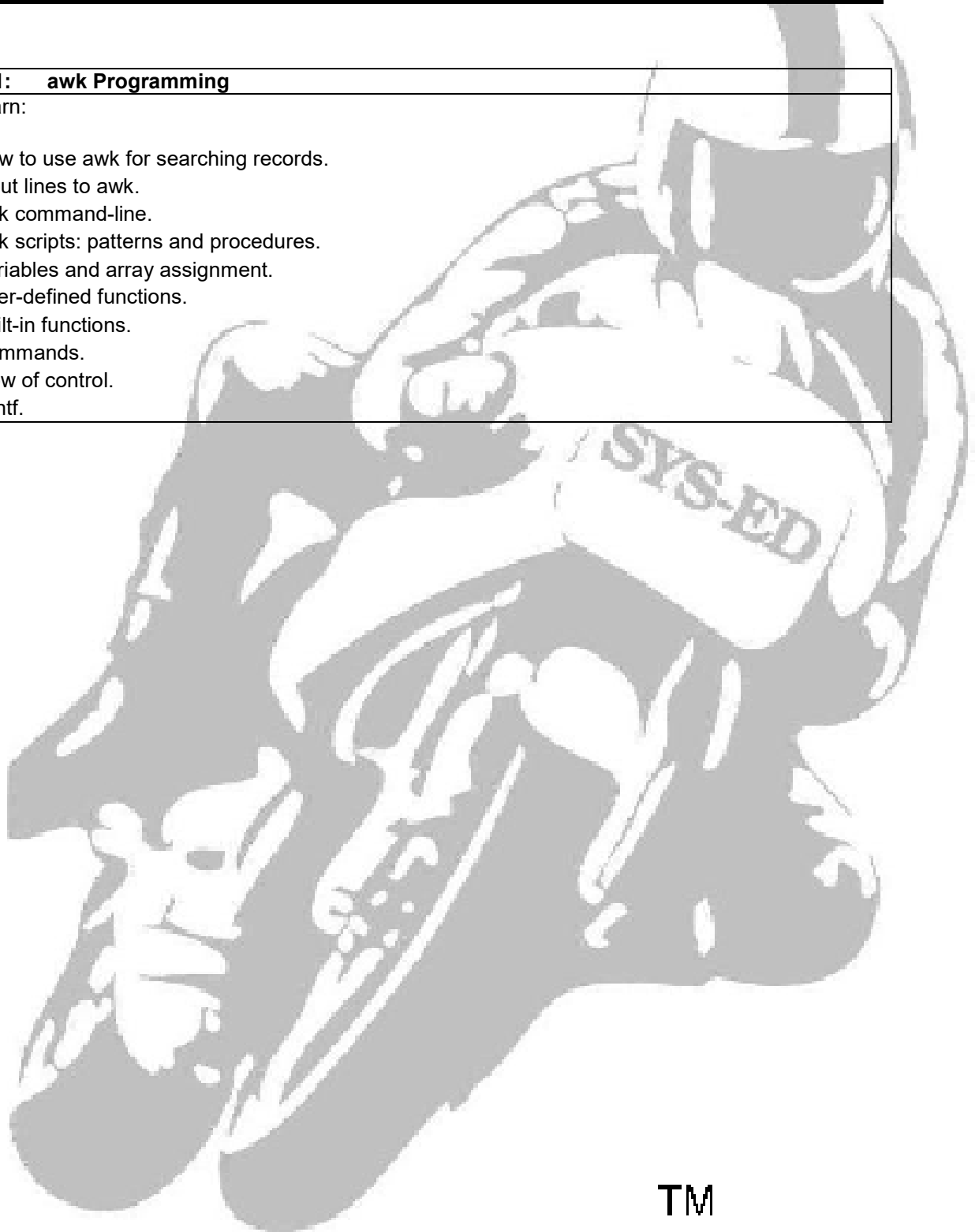
- Text editing with sed.
- How to use line-oriented patterns in sed.
- Putting sed programs into files.
- Handling large programs and files.
- Regular expression substitution.
- Abort processing.

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**Chapter 11: awk Programming**

You will learn:

- How to use awk for searching records.
- Input lines to awk.
- awk command-line.
- awk scripts: patterns and procedures.
- Variables and array assignment.
- User-defined functions.
- Built-in functions.
- Commands.
- Flow of control.
- printf.



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