

UNIX Regular Expressions

Course Summary

Description

This course teaches how to use regular expressions for text processing with Unix utilities.

Course Objectives

After completing this course, students will be able to

- Understand the basic format of regular expression patterns
- Use regular expressions with awk, grep, sed, vi, emacs
- Use greedy and non-greedy repeat counts
- Search, replace, and split text
- Specify subexpressions and use them with backreferences
- Become familiar with special characters

Topics

- Atoms
- Metacharacters
- Quantifiers
- Character classes
- Line and word anchors

Audience

This course will be useful for Unix users, administrators, and programmers who need to work with text files.

Prerequisites

Students should know how to execute basic commands on a Unix/Linux system, and have a rudimentary understanding of the Unix file system.

Duration

One day

Unix Regular Expressions

Course Outline

- I. Working with text tools**
 - A. What are regular expressions?
 - B. Why go to the trouble?
 - C. What regexes can and cannot do
 - D. Tools that use regexes
 - E. grep family
 - F. vi
 - G. emacs
 - H. awk
 - I. sed
 - J. Basic regular expressions
 - K. RE Overview

- II. Basic regular expressions**
 - A. Matching single characters
 - B. Escaping characters
 - C. Character classes
 - D. Anchors
 - E. Repeat counts
 - F. How to pronounce a regex

- III. Extended Regular Expressions**
 - A. Extended regexes
 - B. Matching range of occurrences
 - C. Shortcuts for ranges
 - D. Matching words
 - E. Ignoring case
 - F. Alternate choices
 - G. Subexpressions and Backreferences
 - H. Replacement metacharacters
 - I. Extended regular expressions summary