



Shell Programming

Course Description

Overview

This course is a Lecture/lab format with 50% for each. Students will write many shell programs. Many examples are presented and enhanced by the students.

Course Objectives

- To provide an understanding of the essentials of shell programming with Bourne Shell family shells such as Bash.
- To give you practical experience in writing and using shell scripts.
- To provide experience in understanding run-level scripts on Linux.

When a student finishes this course, he or she will be able to:

- Write shell programs that use the various data types and control structures of the Bash/Posix/Korn shell.
- Describe the use of environment and local variables.
- Use functions and subshells.
- Write robust shell programs with error checking.
- Use the related facilities of AWK, SED, and Expect.

Who Should Attend:

Linux/UNIX system administrators, developers, or power users. Users with a need to automate tasks.

Duration

Two days

Course Materials

The workshop materials include a comprehensive student workbook and CD. The workbook contains all of the slides used in the course as well as hands-on lab exercises.

The CD contains the lab exercise code.

Course Workshop:

The workshop makes use of standard PC's with a desktop Linux distribution for development. Each student should work alone on a Linux workstation. A classroom network is beneficial. If the students do not have their own Linux workstation at a maximum, two may share one workstation.



Topics Covered

1. **Declarations**
2. **Functions**
3. **Processing options and arguments**
4. **I/O, Here documents**
5. **Control structures**
6. **Expressions**
7. **Performance**
8. **Arrays**
9. **Menus**
10. **AWK, SED, Expect**