# ProTech Professional Technical Services, Inc.



# Sourse Outline

# **Bash Shell Script Programming**

# **Course Summary**

## **Description**

Bash Shell Script Programming

## **Topics**

- Special characters
- Variables and parameters
- Tests
- Loops and Branches
- Another look of variables
- Commands 1
- Commands 2
- Working with I/O
- Other topics

## **Prerequisite**

Basic Linux/UNIX knowledge is required for this course.

#### **Duration**

Five Days

# ProTech Professional Technical Services, Inc.



# **Bash Shell Script Programming**

## **Course Outline**

#### I. Introduction

- A. What is shell
- B. Type of shells
- C. Writing shell scripts

#### II. Special characters

- A. Special characters in file globbing
- B. Special characters as metacharacters
- C. Special characters as shell keywords
- Special characters in regular expressions
- E. Quoting
- F. Escaping

## III. Variables and parameters

- A. Variable substitution
- B. Indirect references
- C. Variable names
- D. Variable assignment
- E. Variable scopes
- F. Arrays
- G. Positional parameters
- H. Exit and Exit Status

#### IV. Tests

- A. if/then construct
- B. Test commands
- C. File test operators
- D. Other comparison operators
- E. Compound comparisons
- F. List constructs

#### V. Loops and Branches

- A. for loops
- B. while loops
- C. until loops
- D. Loop control
- E. case/esac
- F. select loop

#### VI. Another look of variables

- A. Numerical constants
- B. Operators
- C. The double-parentheses construct
- D. Internal Variables
- E. Typing variables
- F. Manipulating Variables

#### G. Arithmetic expansion

#### VII. Commands 1

- A. Command substitution
- B. Internal commands and Builtins
- C. Aliases

#### VIII. Commands 2

- A. External Commands
- B. wc, basename, dirname, find, grep, sed, awk
- C. Regular Expressions
- D. Globbing

### IX. Working with I/O

- A. Here documents
- B. Here strings
- C. I/O redirection

### X. Other topics

- A. Subshells
- B. Restricted shells
- C. Process substitution
- D. Functions
- E. Using traps
- F.