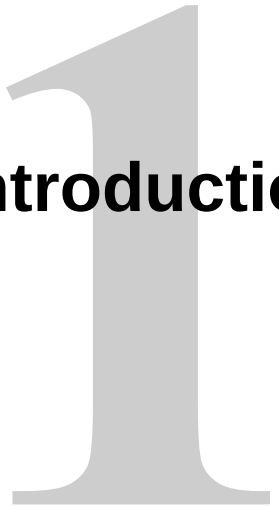
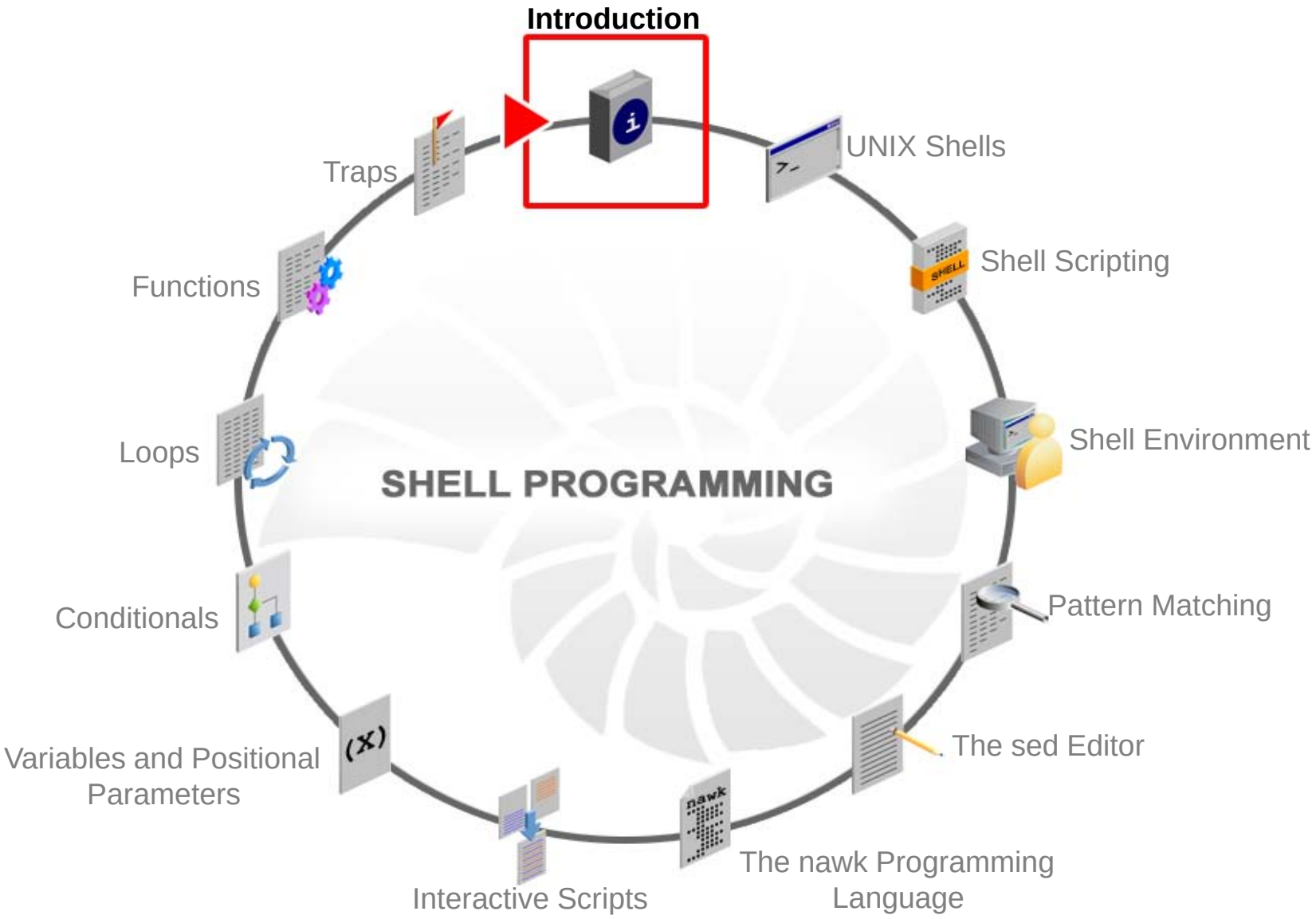


Introduction



Overview

- Course goals
- Course agenda
- Introductions
- Your learning center
- Your practice environment

Course Goals

The purpose of this course is to provide you with the knowledge and skills necessary for developing shell scripts to automate basic and advanced system administration–related tasks.

Course Objectives

After completing this course, you should be able to:

- Create scripts to automate system administration tasks
- Set local and environmental variables
- Automate tasks by using regular expression characters with the `grep`, `sed`, and `nawk` utilities
- Create interactive scripts by using flow control constructs
- Perform string manipulation and integer arithmetic on shell variables
- Debug errors in scripts

Course Agenda: Day 1

- Lesson 1: Introduction
- Lesson 2: UNIX Shells
  - Describes the role of a shell in a UNIX environment
  - Describes the various UNIX/Oracle Solaris shells
- Lesson 3: Shell Scripting
  - Describes the structure of a shell script
  - Describes how to create a simple shell script
  - Explains how to implement the various debugging options in a shell script

Note

- The class is from 9:00 AM to 5:00 PM each day.
- There will be several short breaks throughout the day with an hour's break for lunch.

Course Agenda: Day 2

- Lesson 4: Shell Environment
  - Describes the role of startup scripts in initializing the shell environment
  - Describes the various types of shell variables
  - Explains command-line parsing in a shell environment
- Lesson 5: Pattern Matching
  - Describes the `grep` command
  - Explains the role of regular expressions in pattern matching
- Lesson 6: The `sed` Editor
  - Describes the `sed` editor
  - Describes how to perform noninteractive editing tasks by using the `sed` editor

Course Agenda: Day 3

- Lesson 7: The nawk Programming Language
  - Describes nawk as a programming language
  - Displays output by using the print statement
  - Explains how to perform pattern matching by using regular expressions
  - Explains the use of the nawk built-in and user-defined variables
- Lesson 8: Interactive Scripts
  - Displays output by using the `print` and `echo` statements
  - Explains how to accept user input by using the `read` statement
  - Describes the role of file descriptors in file input and output

Course Agenda: Day 4

- Lesson 9: Variables and Positional Parameters
  - Describes the various types of scripting variables
  - Defines positional parameters for accepting user input
- Lesson 10: Conditionals
  - Describes the role of the if statement in testing conditions
  - Describes the syntaxes for the if/then/else and if/then/elif/else statements
  - Describes how to choose from alternatives by using the case statement
  - Explains how to perform numeric and string comparisons
  - Explains how to compare data by using the &&, ||, and ! Boolean operators
  - Explains the difference between the exit status and the exit statement

Course Agenda: Day 5

- Lesson 11: Loops
  - Describes the `for`, `while`, and `until` looping constructs
  - Explains how to create menus by using the `select` looping statement
  - Describes variable number of arguments to a script by using the `shift` statement
  - Describes the role of the `getopts` statement in parsing script options
- Lesson 12: Functions
  - Explains how to create user-defined functions in a shell script
  - Describes the use of the typeset and unset statements in a function
  - Explains how to autoload a function file into a shell script
- Lesson 13: Traps
  - Describes the role of shell signals in interprocess communication
  - Explains how to catch signals and user errors with the `trap` statement

How Prepared Are You?

A Yes as an answer to the following questions indicates that you are prepared to take this course:

- Can you install, configure, and maintain Oracle Solaris Zones and Oracle Solaris 11 operating systems?
- Can you administer users, packages, SMF services, and applications on Oracle Solaris 11 systems?

Introductions

Now that you have been introduced to the course format, introduce yourself to the other students and the instructor, addressing the following items:

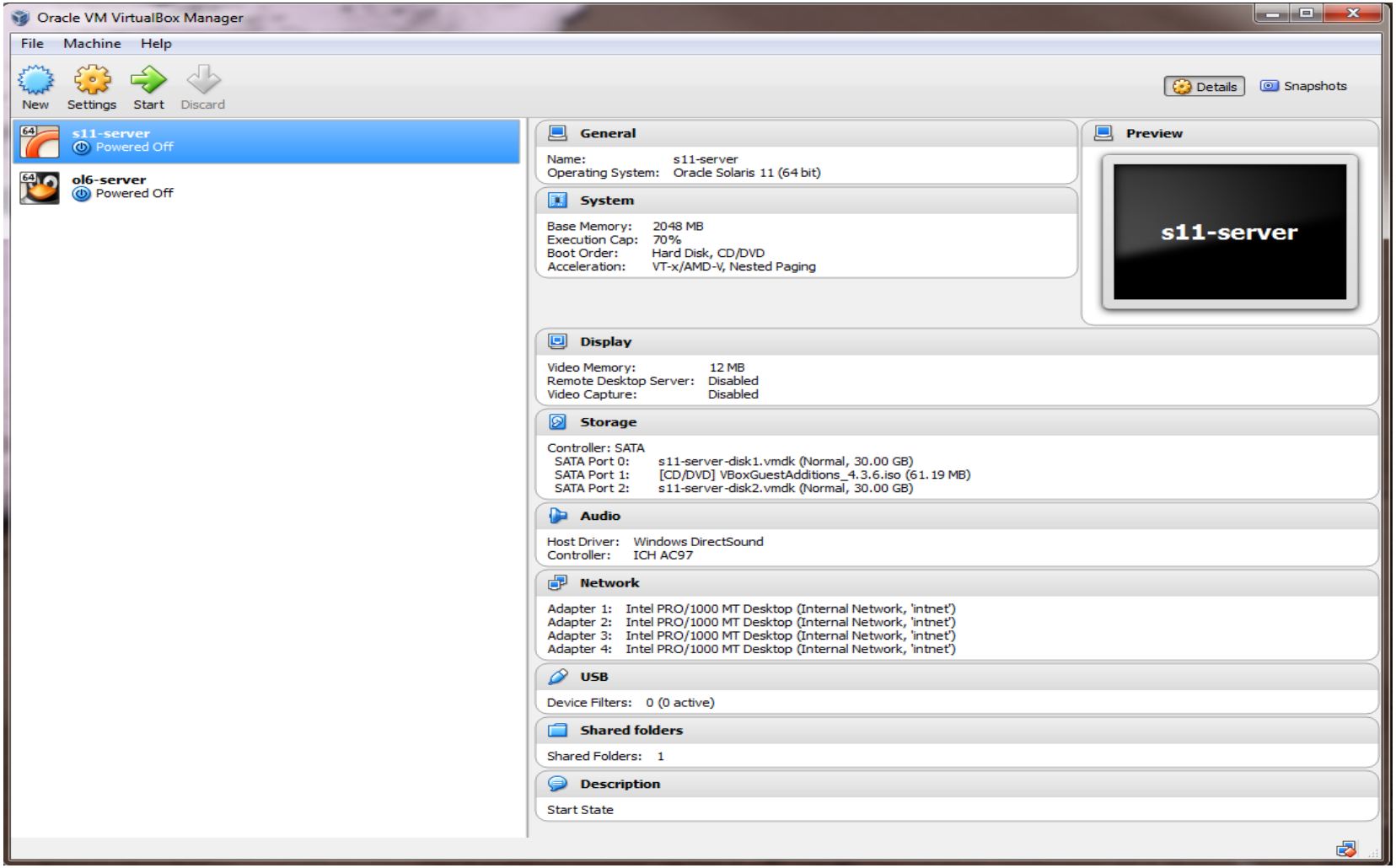
- Name
- Company affiliation
- Title, function, and job responsibility
- Experience related to the topics presented in this course
- Reasons for enrolling in this course
- Expectations for this course

Your Learning Center

The instructor will acquaint you with the following details:

- Layout of the training facility
  - Restrooms
  - Break rooms and designated smoking areas
  - Cafeterias and restaurants in the area
- Emergency evacuation procedures
- Instructor contact information
- Cell phone usage
- Online course attendance confirmation form

Your Practice Environment



Practice 1 Overview: Introduction

This practice covers the following topic:

- Getting Familiar with Your Practice Environment