Shell Basics – Notebook Style Training Notes

Introduction to Shell

Shell acts as a command interpreter and provides an interface between the user and the OS.

A DevOps engineer frequently uses shell to automate and manage systems.

What is Linux Shell

Shell executes commands, handles scripts, supports pipes, redirection, variables, and automation.

Examples include bash, sh, zsh, ksh.

Types of Shell

- Bourne shell (sh)
- Bash (Bourne Again Shell)
- Zsh
- Ksh
- Fish shell

Check Shell Type

Commands to check current shell:

echo $SHELL

ps -p $$

cat /etc/shells

What is Shell Scripting

Shell scripting allows automation of system tasks such as deployments, backups, and monitoring.

Scripts are executed line-by-line by the shell interpreter.

Creating the First Script

nano first.sh

echo "Hello World"

chmod +x first.sh

Shebang Line

The first line that tells the system which interpreter to use.

Examples:

#!/bin/bash

#!/bin/sh

#!/usr/bin/env bash

How to Run a Script

./script.sh

bash script.sh

sh script.sh

Comments in Shell Scripts

This is a comment

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Purpose: Demo script

Hands-on Labs

Lab 1: Basic Script

#!/bin/bash

echo "Script executed successfully"

Lab 2: Shebang Difference

#!/bin/bash vs #!/bin/sh

Lab 3: Run via bash/sh/direct execution

Lab 4: Add Comments

#!/bin/bash

Shows date & user

echo "Today's date is: $(date)"

echo "Current user: $(whoami)"