5.0 Automation and Scripting

5.1 Given a scenario, deploy and execute basic BASH scripts.

- **Shell environments and shell variables**
  - PATH
  - Global
  - Local
  - export
  - env
  - set
  - printenv
  - echo
- **#!/bin/bash**
- **Sourcing scripts**
- **Directory and file permissions**
  - chmod

- **Extensions**
- **Commenting**
  - #
- **File globbing**
- **Shell expansions**
  - ${}
  - $()
  - ` `
- **Redirection and piping**
- **Exit codes**
  - stderr
  - stdin
  - stdout

- **Metacharacters**
- **Positional parameters**
- **Looping constructs**
  - while
  - for
  - until
- **Conditional statements**
  - if
  - case
- **Escaping characters**

5.2 Given a scenario, carry out version control using Git.

- **Arguments**
  - clone
  - push
  - pull
  - commit

  - merge
  - branch
  - log
  - init
  - config

- **Files**
  - .gitignore
  - .git/

5.3 Summarize orchestration processes and concepts.

- **Agent**
- **Agentless**
- **Procedures**
- **Attributes**
- **Infrastructure automation**

- **Infrastructure as code**
- **Inventory**
- **Automated configuration management**
- **Build automation**

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