

Title: Advanced Shell Scripting for DevOps Engineers

Day 9 of the 100 Days of DevOps Challenge

Shell scripting forms the backbone of automation in DevOps, enabling efficient system management and task automation.

Core Concepts

1. System Monitoring Commands:

- **df: Monitor disk usage.**
- **free: Check memory status.**
- **nproc: Display available CPU cores.**
- **top: Real-time process monitoring.**

2. Effective Script Writing:

- **Include metadata for clarity.**
- **Follow naming conventions.**
- **Use comments liberally.**

3. Debugging Techniques:

- **Leverage set -x for real-time command tracing.**

4. Signal Handling with Trap:

- **Use trap to handle interruptions gracefully.**

5. Error Handling:

- **Utilize set -e and set -o pipefail to avoid cascading errors.**

