

User Manual

Introduction

This user manual provides comprehensive guidance for end-users of the project 'Linux System Automation using Shell Scripting'. It covers installation prerequisites, execution workflows, and features of each script, ensuring smooth adoption by system administrators.

Features of Each Script

Script	Functionality
/disk_monitor.sh	Monitors disk usage and alerts when thresholds are exceeded.
/user_management.sh	Manages user creation, deletion, and modification.
/backup.sh	Automates backup of directories and files with error handling.
/process_monitor.sh	Monitors Apache2 service and restarts if down.
/system_health.sh	Displays CPU and memory utilization.
/security_audit.sh	Logs failed SSH login attempts for security analysis.
/network_monitor.sh	Lists active network connections and ports.
/performance_logger.sh	Logs system performance stats for analysis.
/master_logger.sh	Centralized orchestration of all scripts.

Best Practices

- Run scripts with root privileges where required.
- Schedule scripts with cron for consistency.
- Monitor logs frequently for anomalies.
- Test scripts in staging before production deployment.

FAQs

Q1. Do I need root privileges for all scripts?

Yes, particularly for user management, system health, and security modules.

Q2. Can I run individual scripts independently?

Yes, each module is fully modular.

Q3. How do I schedule scripts automatically?

Use cron jobs by editing crontab with ``crontab -e``.

Contact & Support

For assistance, reporting issues, or feedback:

- **Email:** ansh.ssh@outlook.com
- **Documentation:** /system_automation/documentation/
- **Project Maintainer:** Ansh Tripathi

Visual Workflow Diagram

- Cron → Master Script → Modules → Logs/Alerts

