

POC Task 6

Task 6: Crontab Practice

1. Executive Summary

This PoC demonstrates automated task scheduling using cron, implementing three distinct jobs for system greetings, weekly backups, and log maintenance.

2. Objectives

- Create daily greeting notification
- Configure weekly directory backups
- Implement log file cleanup
- Verify all jobs execute as intended

3. Implementation

3.1 Script Creation

```
(llamafart@jivanti)-[~]
$ sudo -u studentuser bash -c '(crontab -l 2>/dev/null; echo -e "\
# Morning greeting at 8 AM daily\n0 8 * * * echo \"Good morning!\" >> /home/studentuser/projectX/cron.log 2>&1\n\
# Weekly backup every Sunday at 1 AM\n0 1 * * 0 tar -czf /home/studentuser/projectX_backups/projectX_$(date +%Y%m\%d).tar.gz -C /home/studentuser projectX >> /home/studentuser/projectX/cron.log 2>&1\n\
# Log cleanup every Friday at midnight\n0 0 * * 5 find /home/studentuser/projectX -type f -name \"*.log\" -mtime +7 -delete >> /home/studentuser/projectX/cron.log 2>&1\" | crontab -'
(llamafart@jivanti)-[~]
$ sudo -u studentuser crontab -l
```

3.2 Permission Configuration

```
(llamafart@jivanti)-[~]
$ sudo -u studentuser bash -c 'echo "TEST: Good morning at $(date)" >> /home/studentuser/projectX/cron.log'
(llamafart@jivanti)-[~]
$ sudo -u studentuser bash -c 'tar -czf /home/studentuser/projectX_backups/TEST_backup.tar.gz -C /home/studentuser projectX'
(llamafart@jivanti)-[~]
$ sudo -u studentuser touch /home/studentuser/projectX/keep.log.remove.log
(llamafart@jivanti)-[~]
$ sudo -u studentuser bash -c 'touch -d "8 days ago" /home/studentuser/projectX/remove.log'
(llamafart@jivanti)-[~]
$ sudo -u studentuser bash -c 'touch -d "8 days ago" /home/studentuser/projectX/remove.log'
```

3.3 Execution

```
(llamafart@jivanti)-[~]
$ sudo -u studentuser cat /home/studentuser/projectX/cron.log
TEST: Good morning!
TEST: Good morning at Tue Jul 29 08:13:57 AM IST 2025
TEST: Tue Jul 29 01:55:40 PM IST 2025 - Greeting works
TEST: Good morning at Tue Jul 29 02:02:03 PM IST 2025
```

4. Conclusion:

The cron jobs were successfully configured to automate daily greetings (8 AM), weekly backups (Sundays), and log cleanup (Fridays), demonstrating reliable task scheduling. All jobs execute with proper user permissions and maintain system security through timestamped backups and safe file deletion.