

Assignment 2 — Uptime & Process Toolkit

Create a Linux toolkit that monitors website uptime, logs responses, and provides summaries. Also build an ops tool to inspect processes, ports, and disk usage safely.

Prerequisites

- 1 Basic Bash scripting and process management knowledge.
- 2 Tools needed: curl, awk, sort, ps, pgrep, ss/netstat, du, date.
- 3 No admin access required.

Setup

Prepare folder and target URLs:

```
mkdir -p ~/uptime_tool/bin ~/uptime_tool/logs
cat > ~/uptime_tool/targets.txt <<'EOF'
https://example.com
https://httpbin.org/status/200
EOF
```

Initialize scripts:

```
touch ~/uptime_tool/bin/check_urls.sh ~/uptime_tool/bin/ops.sh
chmod +x ~/uptime_tool/bin/*.sh
```

Assignment Tasks

- 1 Build check_urls.sh to test URLs and log status/time.
- 2 Add concurrency and timeout options.
- 3 Add --summary mode for statistics.
- 4 Implement log rotation after 1MB.
- 5 Create ops.sh for system inspection tasks.

Marks Distribution

- 1 Logging accuracy: 25
- 2 Concurrency: 20
- 3 Summary correctness: 20
- 4 Log rotation: 15
- 5 Ops toolkit: 15
- 6 README: 5

Stretch Goals (20 Marks)

- 1 Colorized summary output.
- 2 Latency alert system.
- 3 Markdown/CSV summary export.