

OS-Lab-6: Automating Tasks

Services at boot up

In the CLI enter: `systemctl enable "servicename".service` and press enter.
Replace "servicename" with the name of the service you want.
Now restart the system and that service is restarted.

Start / Stop services

To start a service, type: `systemctl start "systemname".service` and that service is started.
To stop a service, type: `systemctl stop "systemname".service` and that service is halted.

Scheduling

To schedule a task, type: `crontab -e` – this will enter you into the vi editor where you can write a bash script that will start when you tell it too.

Example of a script:

```
#!/bin/bash
18 12 * * * /path-to-script
```

Shell Control

Doing a task in the shell from the CLI.

Pattern matching

`grep` is a command that will show all instances of a certain item within a file or directory.
Example: `grep -w you <file/dirname>` = output of instances of "you" within file/dir.

Redirecting input/output

To redirect the output of a command simply use the ">" and input is "<".

```
ls -l myfile.txt > test.txt
```

Here we see the output is redirected from the console into the file test.txt.

Piping data

example pipe command: `ls -l | cat` will long list a directory into a cat view.

Background processing

A process that will run in the background leaving space available for other tasks.

Schedule a script

Develop a script to execute on a schedule. Use your access to the work server. Document the process and turn in with this work.

I wrote a backup.sh script that will back up my user/public_html folder on my workstation.

Then a set a crontab that will start the script at 1:30am every morning.

The syntax for the following above is as follows:

The backup.sh script:

```
#!/bin/bash
tar czvf backup.gz /home/user/public_html
mv backup.gz /home/user/docs
```

The crontab is: `30 01 * * * /home/user/bin/bash.sh`