

Troubleshooting Lab Scripts

The `lab` command displays a list of action steps or grading criteria while it runs, with a PASS or FAIL status for each. If the status is FAIL, the script will display additional information captured from the step's command output. The output displayed, and how useful it might be for troubleshooting, will vary depending on what the step was doing.

```
[student@workstation ~]$ lab grade comprehensive-review1
```

Grading lab.

```

· Checking lab systems ..... SUCCESS
· Verify that cluster is running on the hosts ..... SUCCESS
· Verify that cluster health is ok ..... SUCCESS
· Verify that number of OSDs is 11 ..... FAIL
  - '11 osds' not found in command output at 'clienta'
· Verify OSD public_network ..... FAIL
  - '172.25.250.0/24' not found in command output at 'clienta'
· Verify OSD cluster_network ..... SUCCESS

```

Overall lab grade: FAIL

All exercise scripts are stored on the `workstation` system in the folder `/home/student/.venv/labs/lib/python3.6/site-packages/SKU/`, where the SKU is the course code. When you run the `lab` command with a valid action and exercise, it creates an exercise log file in `/tmp/log/labs`, and captures command output and error messages into the file.

```

[student@workstation ~]$ lab start cluster-review
...output omitted...
[student@workstation ~]$ ls -l /tmp/log/labs/
-rw-rw-r--. 1 student student 7520 Nov 02 05:34 cluster-review

```

Although exercise scripts are always run from `workstation`, they perform tasks on other systems in the course environment. Many course environments, including OpenStack and OpenShift, use a command-line interface (CLI) that is invoked from `workstation` to communicate with server systems and components by using REST API calls. Because script actions typically distribute tasks to multiple systems, additional troubleshooting is necessary to determine where a failed task occurred. Log in to those other systems and use Linux diagnostic skills to read local system log files and determine the root cause of the lab script failure.

Updating the Lab Files

Performing maintenance on the `lab` command and script files should only be done on the advice of your instructor or Red Hat support personnel. Incorrect use of the `lab` command or versioning can make your course environment unable to run `lab` commands or for you to perform exercises. List all available `lab` actions by using the `--help` option.

```

[student@workstation ~]$ lab upgrade SKU
...output omitted...
[student@workstation ~]$ lab --help
...output omitted...

```