Upgrade Rancher (Docker)

Lab 8

What are you Learning?

In this lab you'll upgrade your Docker backed Rancher installation.

Why is it important?

New versions of Rancher come with new features. They also support newer versions of Kubernetes. Developers may not want to replace an existing Rancher installation in their environments every time a new version launches, so being able to update to a new version is tantamount.

Upgrade Rancher

This lab will have two paths. One path, if you installed Rancher with a bind-mounted volume (i.e. used the -v argument), another path if you installed Rancher with a Docker volume (i.e. did not use the -v argument).

Upgrade a Rancher Cluster with a Bind-Mounted Volume

1. Stop the running container, you can find the name using the `docker ps` command.
2. Backup the Rancher data, if you haven't already.
3. Move the backup to a safe place.
4. Start a new Rancher container, with the existing bind-mount. Here's an example of the whole process
    a. Don't forget to use a static tag, like v2.4.2 and not a dynamic tag like latest.

```
~$ docker ps
CONTAINER ID        IMAGE                        COMMAND
CREATED             STATUS                 PORTS
                            NAMES
5dff4c71d487        rancher/rancher:v2.4.1   "entrypoint.sh"      3
minutes ago         Up 3 minutes          0.0.0.0:80->80/tcp, 0.0.0.0:443-
>443/tcp   beautiful_swanson
~$ docker stop beautiful_swanson
beautiful_swanson
~$ cp -Rp /opt/rancher /opt/rancher.bak
~$ mv /opt/rancher.bak /asafeplace/
~$ docker run -d --restart=unless-stopped -p 80:80 -p 443:443 -v
/opt/rancher:/var/lib/rancher rancher/rancher:v2.4.2
```

### Upgrade a Rancher Cluster with a Docker Volume

1. Stop the Container
2. If you haven't already, [create a backup](#).

3. Upgrade the Rancher Cluster, per the [Rancher Documentation](#)

Testing That It Works

Regardless of the method you used to backup and restore the backup, success looks the same. Be sure to test both installation methods, as well as both upgrade paths.

1. Once again, you should be able to navigate to the Rancher cluster in a browser, via the machine's public IP address. Again, don't set a password and leave the cluster as is.
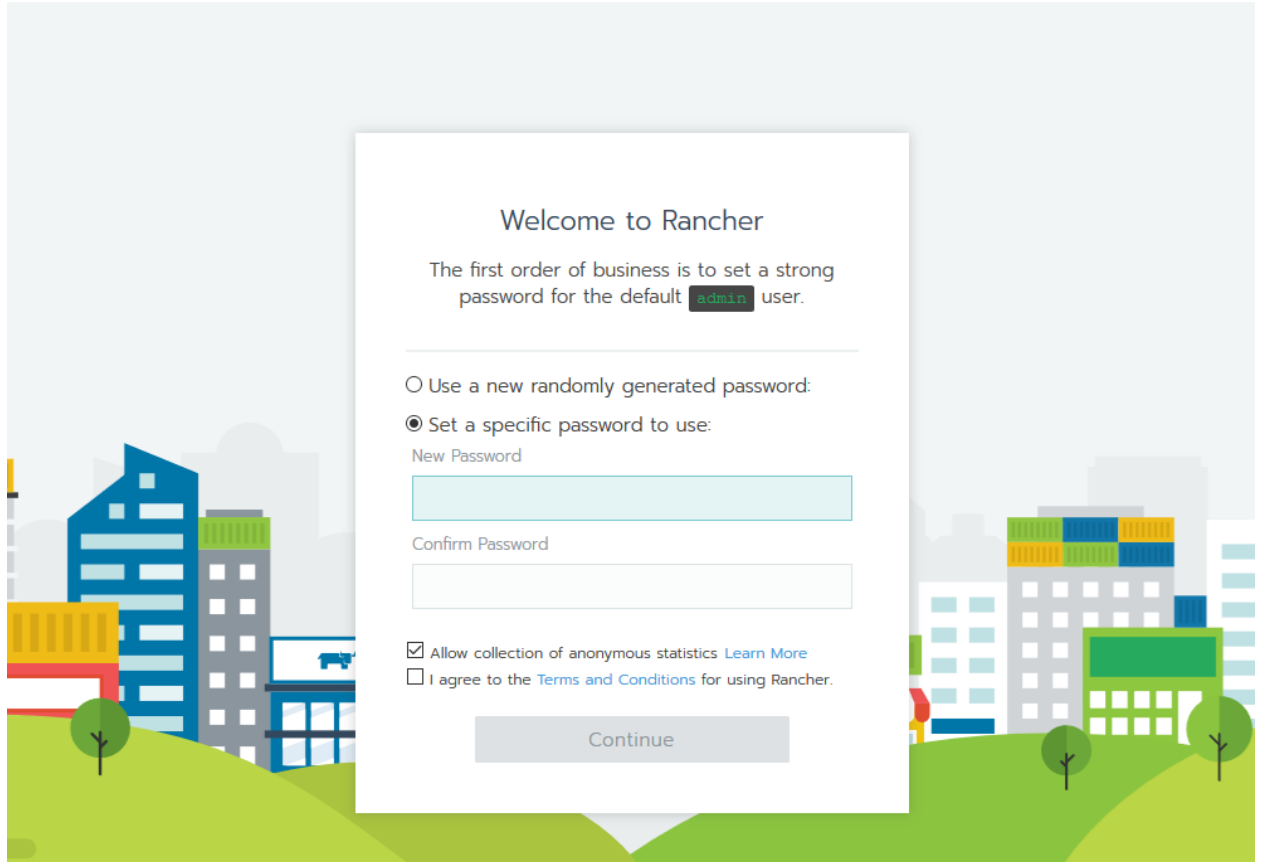
[Consider what you would do if something failed](#). This is why it's important you take a backup prior to performing an upgrade.

Cleaning Up

Once you've confirmed everything is running as expected, you may remote the old docker container.

```
~$ docker rm beautiful_swanson
```

References

- Backing up Rancher Installed with Docker - https://rancher.com/docs/rancher/v2.x/en/backups/backups/single-node-backups/
- Upgrade Rancher Installed with Docker - https://rancher.com/docs/rancher/v2.x/en/upgrades/upgrades/single-node/
- Docker Rollback - https://rancher.com/docs/rancher/v2.x/en/upgrades/rollbacks/single-node-rollbacks/