Deploy, Upgrade and Roll Back a Workload

Lab 29

What are you Learning?

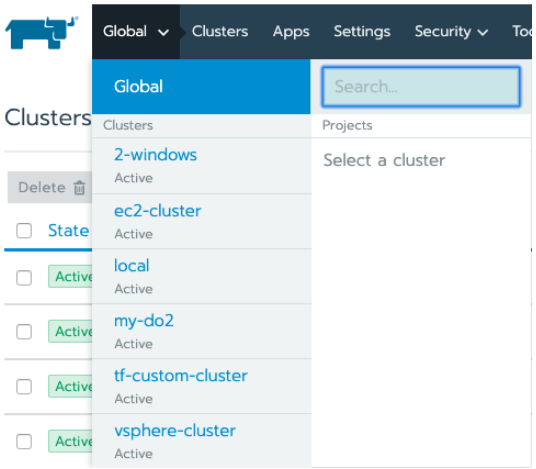
You will learn how to work with deployments in Rancher, including deploying, upgrading, and rolling back workloads.

Why is it important?

Workloads are the cornerstone of Kubernetes applications. Workloads provide powerful features like rolling updates, application scaling, and pod failure remediation.

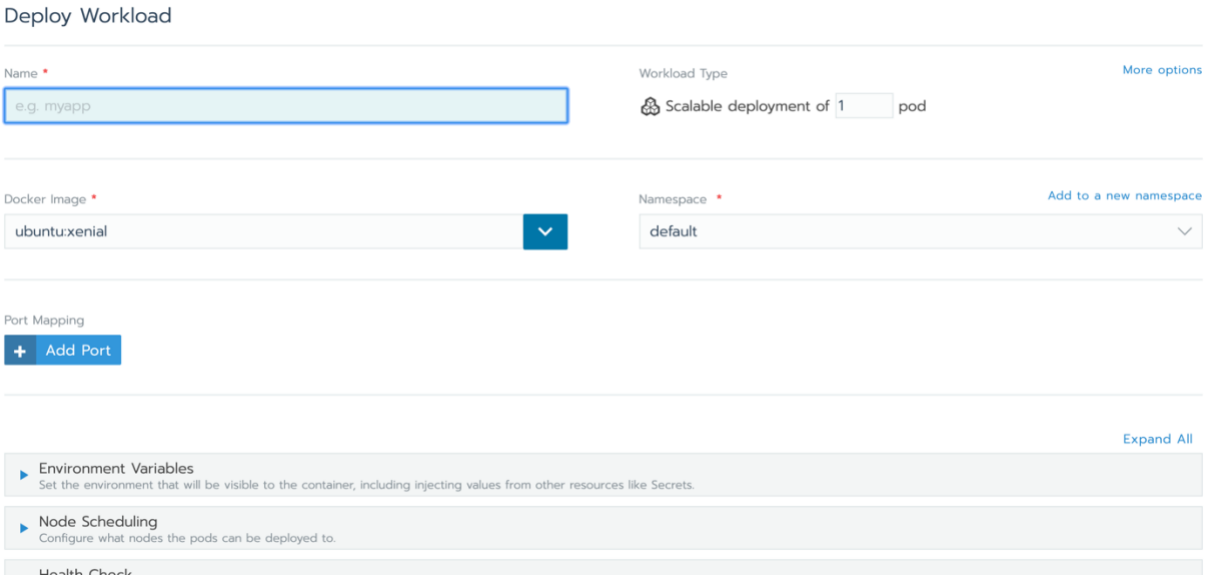
Working with Workloads

1. In the Rancher UI Navigate to the cluster and project you would like to use for this exercise by selecting it from a list of clusters in the top left Menu. Be sure to also select a project from the right part of the menu



2. The top menu bar now reflects the available options in the project context. Select “Resources” from the top menu, and then select “Workloads”.
3. The workloads page shows you the currently deployed workloads for the current project context. You can see all namespaces that are within a project, but not namespaces outside of the project.
4. To deploy a workload, select the “Deploy” button in the top right corner of the screen. This will take you to the workload builder. The key pieces of information we need on this page are the name we want to give to our workload, the Docker image, and the scale quantity. For this lab, use the “nginx” image, and a scale of 1. Call your workload “nginx”.

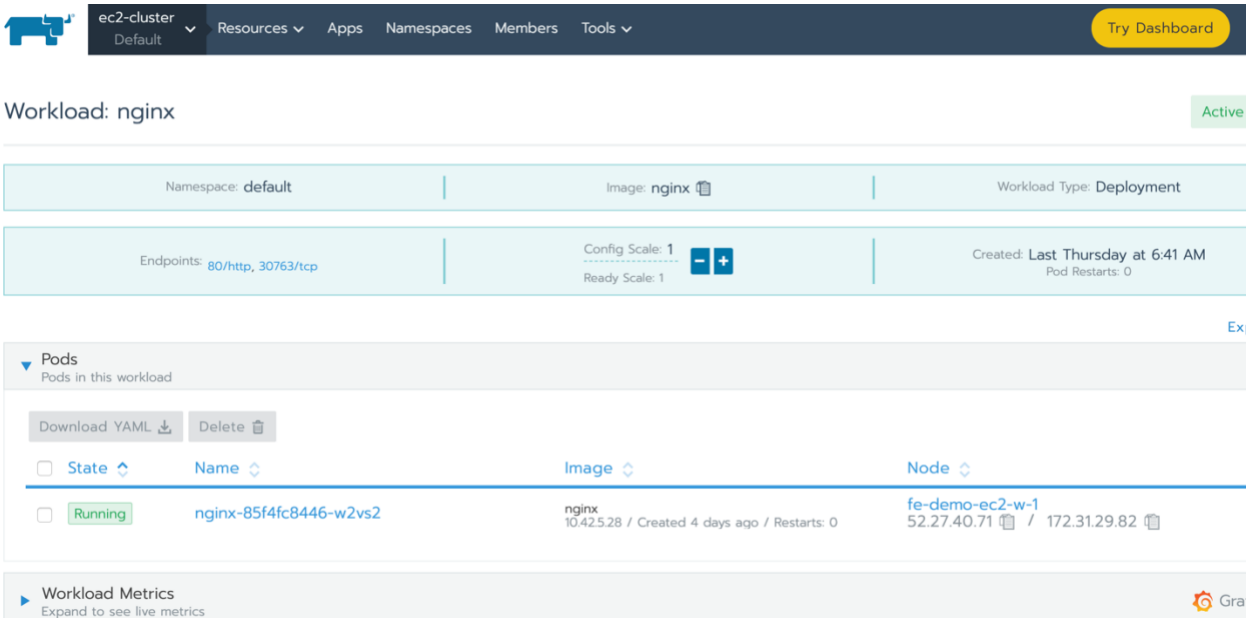
Then click “Launch” at the bottom of the screen.



5. Our workload will immediately start deploying in our cluster. To inspect the workload, find the deployment on the workload screen and click on it. The page that opens will tell you the status of the workload
6. To edit the deployment, open the top right menu icon with three dots and select “Edit”. Change the workload quantity to 5. Then at the bottom of the page, expand the “Scaling/Upgrade Policy” section and change batch size to 3. This will cause changes to pods to affect three pods at once, which speeds up the upgrade process but also increases potential disruption. You can also change the behavior of pod replacement to first start the new candidate pod before stopping the original, or the inverse. Now click “Save”. This will immediately cause the changes to take effect.
7. Finally, roll the workload back to a previous state. Click the same three dot menu to the right of our deployment and select “Rollback”. Here you will be presented with a list of revisions to choose from. Select the most recent one, which was before we made our scale quantity change.

Testing That It Works

At the end of this exercise you should be able to see a running deployment in your workloads page with the image “nginx” and a scale of quantity 1.



References

- Kubernetes Workloads and Pods- https://rancher.com/docs/rancher/v2.x/en/k8s-in-rancher/workloads/