Bachelor Thesis Description, status: open , language: EN/DE

A Continuous Deployment Pipeline for CMSuite

Summary

Inner source (IS) is the use of open source development practices within an organization. To help IS stakeholders understand the IS collaboration within their company, we are developing the Collaboration Management Suite (CMSuite): It extracts patch-flow data of an organization (patch-flow is the flow of code contributions within organizations) and uses the data to satisfy a multiple use cases (for example to show a management dashboard, or to enable managers to account for IS labor of their subordinates).

In this thesis, the student will extend our existing Jenkins build pipeline to deploy each CMSuite build to a Kubernetes cluster. The student will evaluate the differences between Jenkins and Gitlab CI. If deemed necessary, the student will migrate our CI pipeline from Jenkins to Gitlab prior to performing the changes.

Work Results

- Migrated existing pipeline from Jenkins to Gitlab CI (if necessary)
    - Runs for every pushed commit and merge request
    - Uses AWS VM instance as build node
- Implemented deployment to Kubernetes
    - Developed strategy on how to deploy CMSuite to Kubernetes
    - Configured playground Kubernetes
    - Implemented staging deployment (deploying merge request or newest commit of a branch)
    - Implemented production deployment (deploying multiple production instances)
- Step-by-step guide on migration from playground to in-house Kubernetes

Supervisor

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