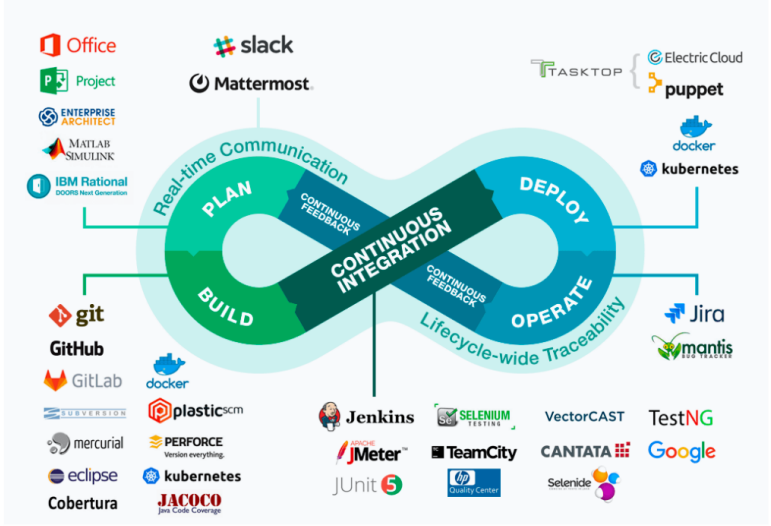

Project Proposal

Prepared for: Tyson Henry, *Professor*

Prepared by: Atreya Sinha, *Student*

August 31, 2021

Project: Showcase Bug Tracker using DevOps methodologies

SUMMARY

Objective

To demonstrate a firm understanding of the SDLC by implementing a project that uses DevOps to automate the process of build and deployment.

Goals

- Solid understanding of DevOps/Agile philosophies.
- Elevate skills by learning and implementing top DevOps tools in the market.
- Land a job as a DevOps Engineer or Site Reliability Engineer.

Project Outline

The idea behind this final project is to demonstrate my DevOps skills to potential employers and gain insight into this fast-evolving field. To fully implement the DevOps pipeline, testing, infrastructure, etc. a project is needed. So I will be building a Bug/Issue tracker web app that allows users to create an issue, add members/team to that issue, and monitor it.

I will use Git to track changes in the code. I will create the pipeline using Jenkins. Jenkins will pull the code and start building if new features are added to the web app.

Build -> Test -> Deploy

I will also use Docker to containerize the application. Containers make sure that the package versions are the same across the development and test teams. After the web app is successfully built, automated testing will start using Capybara. And if all the tests pass, Terraform will allocate resources in the cloud if not already allocated and automatically deploy the application to the cloud.

TOOLS/TECHNOLOGIES

Bug Tracker

Front-end	-	HTML, CSS, JavaScript, Bootstrap
Back-end	-	Python, SQLite
Framework	-	Django

DevOps

Continuous Integration	-	Git
Continuous Pipeline	-	Jenkins
Infrastructure as Code(IaC)	-	Terraform
Container	-	Docker
Testing(Unit/Integration)	-	Capybara
Cloud	-	GCP/AWS