DEVOPS CONTINUOUS INTEGRATION AND CONTINUOUS DEPLOYMENT CI/CD PIPELINE IN AWS CLOUD

Nelson Marlborough Institute of Technology
Te Whare Wānanga o Te Tau Ihu o Te Waka a Maui

DEVOPS

DevOps methodology has made a significant change in the way business works with its transparency and cross-platform discipline. The purpose of this project is to implement and enhance both the development environment and production infrastructure of organization through the integration of CI/CD process by using various automation tools for delivering high quality software service at a faster pace.
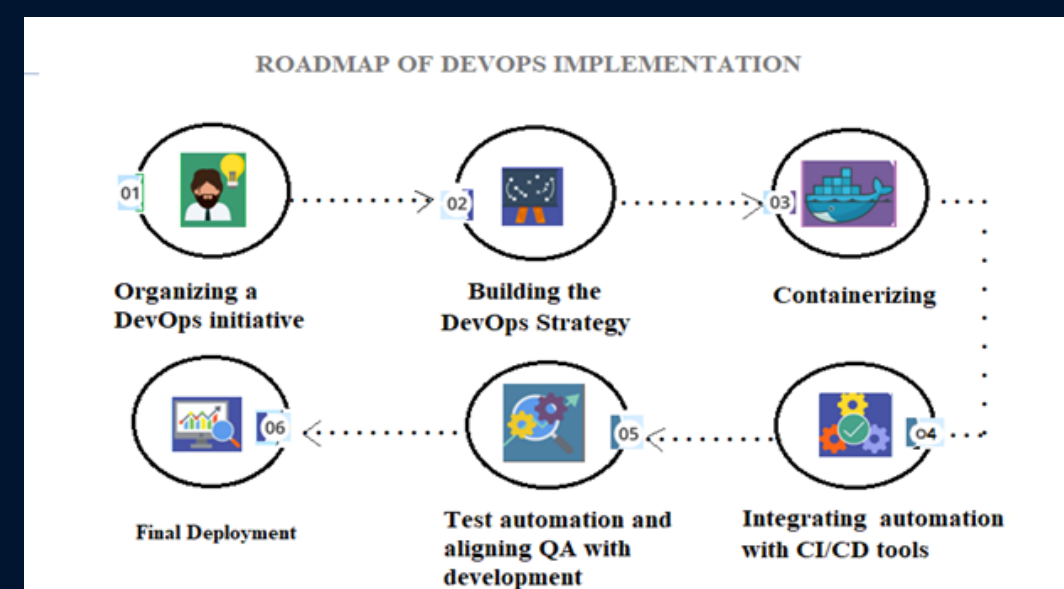
TOOLS
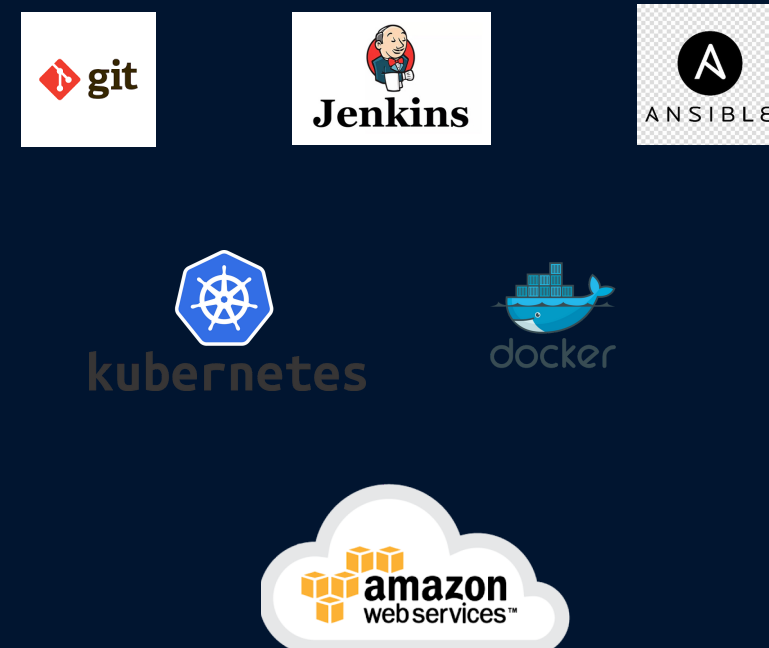
PROJECT PLAN
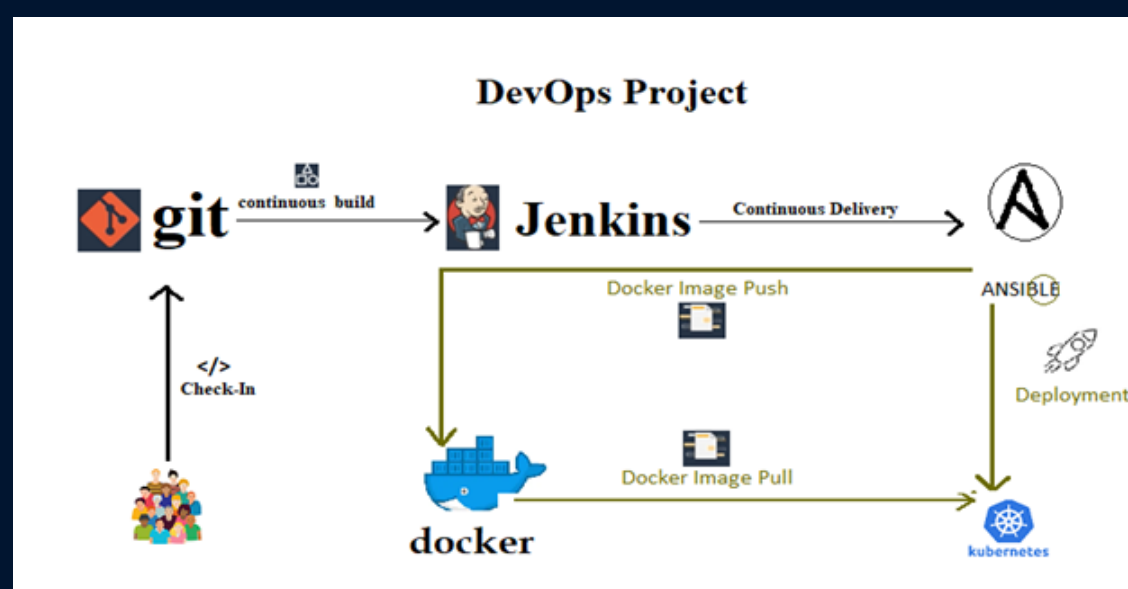
IMPLEMENTATION

The project implementation has been carried out with the help of CI/CD Pipeline in AWS Cloud infrastructure. Once the build is generated via Jenkins, an image would be created and is pushed to dockerhub by using the automation tool called Ansible and finally run the image as container in the kubernetes management cluster.

FUTURE ENHANCEMENTS

As part of future development, dynamic application, either web or mobile could be developed and as a result, proper testing and monitoring of applications could be done before pushing the code for deployment.

CONCLUSION

DevOps as a methodology offers wide variety of advantages over traditional IT infrastructure especially in terms of speedy delivery of applications and services. With cloud, the whole process become more agile and by integrating DevOps with open-source automation tools using CI/CD pipeline makes a hassle-free process for both the development and operations team. As a result, this project aims to understand the requirement of current IT industry and offers a very innovative approach of delivering products in a cost-effective manner.

Name: Akhil Kumar Dileep Kumar
Supervisor: Mr. Lars Dam Oliver