DevOps: Week 2

Matthijs Bos

February 2020

Source code	`https://github.com/matthijsbos/DevOpsLabWeek2`
Travis CI	`https://travis-ci.com/matthijsbos/DevOpsLabWeek2`
Docker image	`https://hub.docker.com/r/matthijsbos/devops-lab-week-2`

1 Introduction

During this week's practice the main focus has been on establishing a part of DepOps' tasks. A simple workflow using tasks was established as a means of planning the project's activities and some coding work has been done in order to implement the application. This assignment's mainly emphasized the configuration of a continous integration and delivery pipeline as well as the importance of automated testing in DevOps. This covers DevOps' activities for testing, releasing and deployment.

2 Tasks

The Swagger api definition was completed without any trouble, the `DELETE` method's definition was actually already fixed and did not require any further attention.

Given that the Dockerfile was already provided for this assignment, building and publishing the image on Docker Hub did not prove problematic offline as well as remotely through Travis CI.

3 Granularity

The layered approach has the advantage of providing a means of modularity as well as a separation of concerns in the application's logic. Following this simple repository pattern could potentially allow to easily change implementations as well as facilitate testing due to the interface that was defined between the layers.

Separating the database server from the web server instance allows for these two server components to scale independently or even swap it out with a PaaS solution. This app's storage requirements can easily be translated to both a relational as well as document-oriented database systems, so this won't influence the choice of structured storage (SQL vs. NoSQL). Other than the current implementation using `tinydb` there isn't any real constraint on the choice of platform. The level of customization required will move your choice away from a cloud solution. Cost of operation and management will likely be the primary driving factor behind the choice for a specific platform.