

## **Documentation of the Approach used in the exercise**

### **Introduction**

This is a documentation of the approach taken in doing the deployment utility exercise. For this exercise, an agile approach of development was used. This documentation also includes steps to follow that were not achieved in the given time frame.

### **User Interface**

The user interface is built using ReactJS which is a JavaScript framework used to build front-end web applications.

The user is provided with an input field and a submit button to provide a URL to a containerized image. The URL is checked against a regular expression to ensure it is a URL before it is sent to the server side. It is also checked to ensure that it is not empty.

Axios, a JavaScript library used to get HTTP requests from Node.js is used to send a post request to the server with the URL.

### **Back-end**

The server side is developed using Node.js which is a JavaScript run-time environment that is capable of executing JavaScript outside a web browser.

Still in the back-end, the Express.js framework is used to create the API for the utility.

### **Following Steps**

The following steps will be to add deploy the application image to Kubernetes. For this exercise, Minikube will be used to run Kubernetes locally.

Alongside Minikube, Kubectl which is Kubernetes command line tool that allows us run commands against the Kubernetes clusters will be used.

### ***Testing***

End to end tests will also be written to test the flow of the utility from beginning to end.