# Team 81: Fun With Kubernetes

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## Contents

# 1   Winter Term 2022 Project Partner Update

Hello Kyle!

Here is a document that details our progression during the Winter Term of 2022. We have highlighted the remaining deliverables left to implement during the Spring Term of 2022.

## 1.1   Deliverables completed

1. Kubernetes Setup
2. Kubernetes CI/CD Config File Integration
3. Github Container Build Pipeline
4. K8S Deployment

a. Watch the images in the deployment area
b. Deploy a new image in the deployment area

5. Deployment UI Website

a. Create a clean and usable web UI
b. Create an interface to pass applications as well as necessary configuration settings to the pipeline for deployment

## 1.2   Section 2 - Work in Progress

4. K8S Deployment (Paul Lim)

a. Implement CRUD operations with the pipeline daemon **(1-2 Days)**
b. Testing **(1 Days)**
c. Code Reviews and release **(2-3 Days)**

5. Deployment UI Website (Nathan Hausman)

a. Containerize the web UI and self-host on the cluster **(1 day)**
b. Create an interface to pass applications as well as necessary configuration settings to the pipeline for deployment **(3-6 days)**
c. Set up an automated system for containerizing an application to be passed to the pipeline that is not yet containerized **(2-4 days)** [**stretch**]
d. Expose admin tools, such as Lens IDE ~~**(2-7 days)**~~ **omit**

   e.  Set up authentication ~~**(3-5 days)**~~ **omit**

   f.  Code reviews and release **(4-5 days)**

6.  Integration (All Members)

   a.  Integrate the connection with the backend with the Deployment UI Website **(7-10 days)**

   b.  Internally test (Alpha Testing) the full pipeline, so a developer should be able to deploy a web application with the Deployment UI portal **(7-10 Days).**

   c.  Code Review and Release **(7 days)**

7.  Beta Testing (All Members)

   a.  Utilize multiple test web application for beta testing **(7-14 days)**

   b.  Provide an user with a Github link that contains a web application project, instruct the new users to onboard the web application project to our service.