



# **Alianza Capstone Project**

# **Ship it!**

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# Concept and requirements

## Project definition

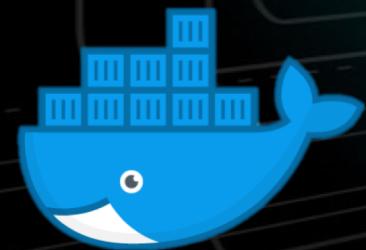


### Project Scope

- **Build a Continuous delivery System**
- **Find or build a pipeline**
- **Connect pipeline to a build service**
- **Allow for manual and automatic gates when needed**
- **House the system in AWS**

### Stakeholders

- **Devs**
- **DevOps**
- **Testing Automation Team**
- **Management**



**“Design and develop an AWS compatible code configured pipeline with an API, able to build asynchronously and a UI for monitoring by April 10, 2019.”**

# Market analysis

## Why we're needed

**GoCD** – Good interface, manual gates, OpenSource, No CI, Configuration as code, expensive support.

**TeamCity** – Simple, well packaged, lots of options, Expensive as it scales up, limits number of build agents.

**Jenkins** – Open source, plugins w/ documentation, has support for build pipelines, Dedicated server, Setup.

**Travis CI** – Cloud Hosting, Build matrix feature, multiple testing env, Limited customization, Costs enterprises.

**Drone.io** - Specialized for containers, out of the box functionality, Expensive, not very flexible.

## Conclusion

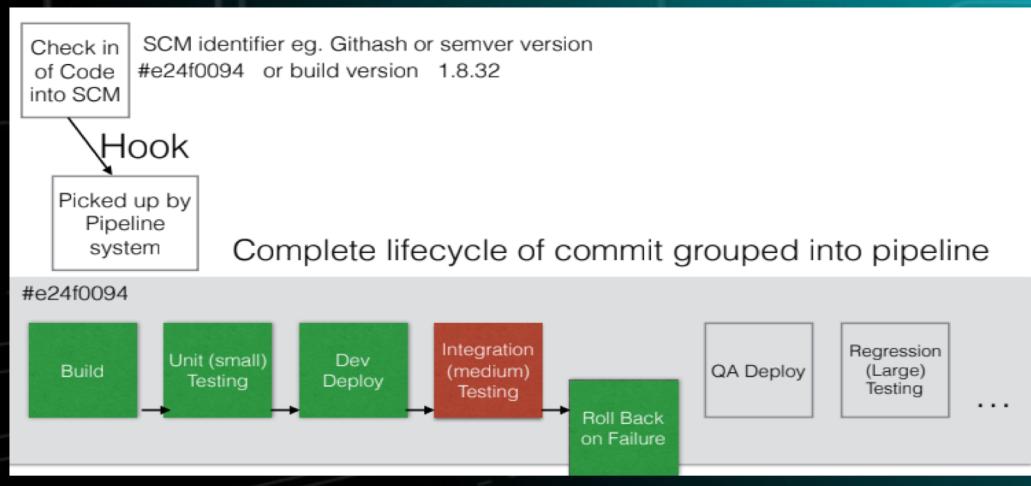
- Most products do either CI or CD. No software does everything we need.
- We have some desired features that aren't addressed in many (if any) products.
- The budget requires an open source solution - with customization.
- We will need to mix and match different products to accomplish our goals.

# Known, Unknown

## What we've done

### Pipeline, CICD

- **Source control**
- **Pipeline system**
- **Build Agents/Executors**
- **Deployment Targets - Bare metal, VMs, On-prem, Cloud, etc.**
- **Configuration as Code systems**
- **Testing Frameworks**
- **Secrets and Environment Variable management**



### Unknown

- **We are able to setup the skeleton requirements however, there are lots of potential features that are wanted and we are unsure which ones will be feasible at this point.**