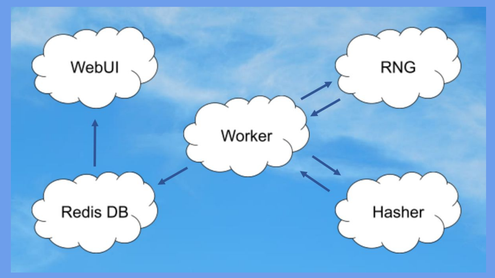
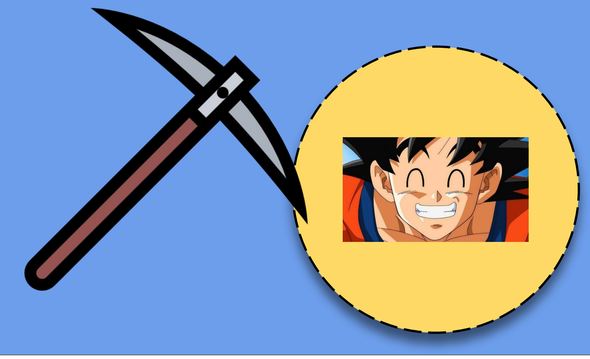


Gokoins Coin Miner

https://github.com/Every-Villain-Is-Lemons/CSC468-Team-Project

By: Brennan Busza, Bryan Gonzalez-Moyano, Tyler Prehl, Ani Tapia, Matthew Weigand



What IS Gokoins Coin Miner?

Text

```
Some text
Some text
Some text
Some text
Some text
Some text
Some text
```

Hash function

Hash value

```
20c9ad97c081d63397d
7b685a412227a40e23c
8bdc6688c6f37e97cfbc2
2d2b4d1db1510d8f61e
6a8866ad7f0e17c02b14
182d37ea7c3c8b9c2683
aeb6b733a1
```

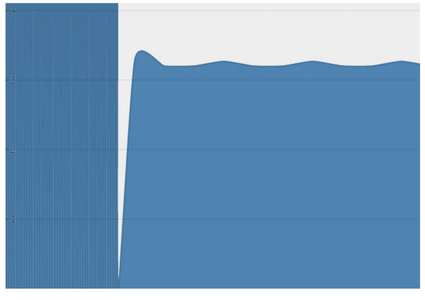
The basic premise of a coin miner is to mine a fake cryptocurrency by solving hashes

Ours is a tad different than reality

Original Goals

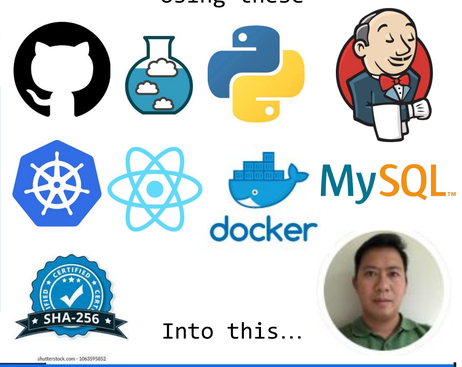
Turn this

DockerCoin Miner WebUI

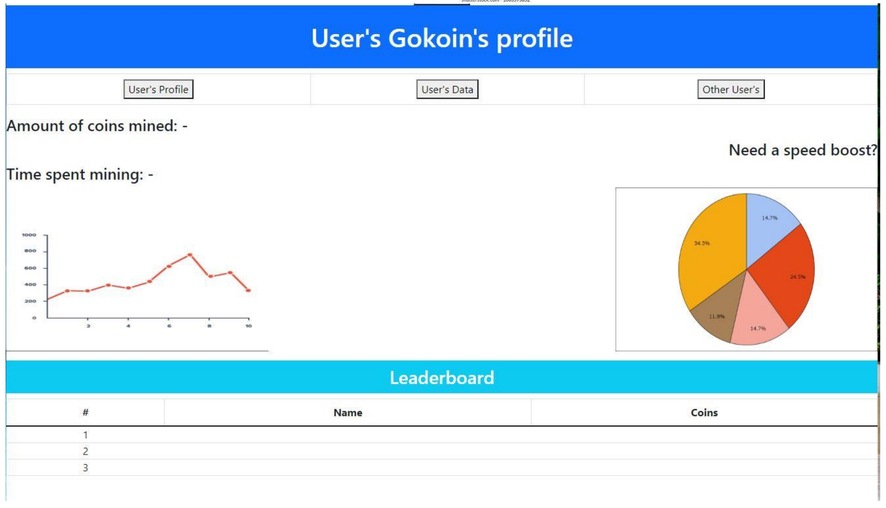


Current mining speed: ~4.0 hashes/second (Tweet this!)

Using these

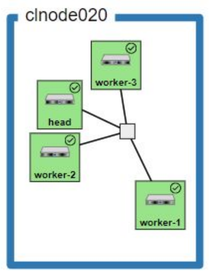


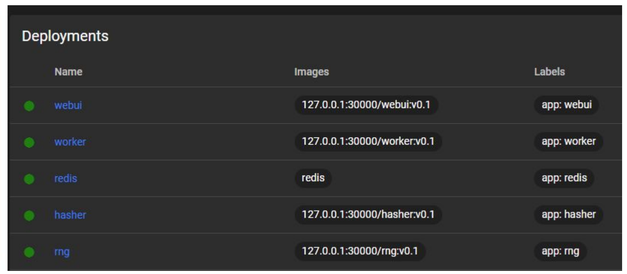
Into this...



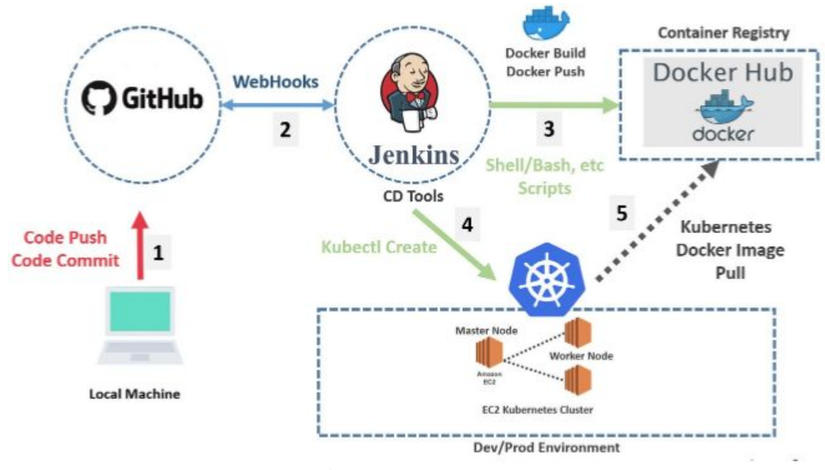
Progress Over Time

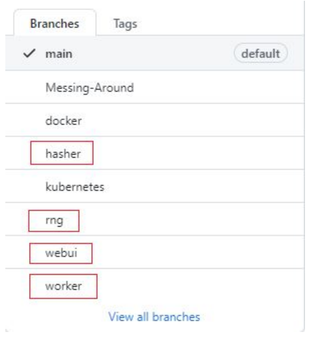
Pre-made Kubernetes deployment, courtesy of Dr. Ngo





The goal: an end-to-end automated CI/CD service





To make our future lives much, much easier, we broke down our Jenkins pipeline into 4 - one for each main piece of Gokoins

With a simplified shell script and example Jenkins pipeline (“hello”) in hand, we started crafting our Jenkinsfiles and modifying our deployment and service.yml files

Progress Continued

Deploying via Jenkins pipelines...

Configure Clouds

The beauty of it - testing features is AMAZINGLY easy

Present Day

- Imperfect pipelines
  - Patching NodePort values
    - Success on kubernetes-dashboard, failure with WebUI
  - Previous deployment errors
- WebUI
  - Still basic-looking
  - No user-integration
  - No boosting/buying resources
- Hasher-RNG
  - Still original code, not as true to coin mining as we had hoped

Conclusions:

- Learning moments
  - Ruby->Python
  - Flask
  - Jenkinsfiles
    - “Dollar slashy strings”
  - GitHub organizations
  - Connecting a web app to a database is *difficult*

Original Code Base: https://github.com/jpetazzo/container.training