

Documentation

Address

<http://hnclone.eu-central-1.elasticbeanstalk.com/>

Implementation

The system's primary language is php. That means that there is no need for building it as php is an interpreted language.

The database is SQL and it features the following tables:

- Login:
 - Username (varchar 60)-primary key
 - Password (varchar 90)
- Post:
 - Post_id (int)-not null, primary key, auto increment
 - Username (varchar 60)
 - Post_type (varchar 90)
 - Post_url (varchar 90)
 - Post_parent (int)
 - Date (varchar 90)
 - Hannest_id (int)
 - Post_text (varchar 90)

The code is hosted on CodeCommit.

The CD/CI chain is done using CodePipeline. After submitting a new version to CodeCommit, CodePipeline will take it and upload it to an ElasticBeanstalk server. The whole process takes around 2 minutes from the moment the push was done until the update is live.

Status functionality

The status works by using AWS's SDK to get information about the health status of the ElasticBeanstalk server and the status of CodePipeline. If the health status is different from "OK" the system will be reported as down. If the system is not down and the CodePipeline status is "InProgress" the system will be reported as updating.

How does the website work?

On the first page, the website displays a set of stories sorted by date. By clicking the "more" button at the bottom of the page, the next 50 stories will be displayed.

If a user is not logged in, two buttons will appear, one for login and one for registering. The register and login pages look similar and behave similarly at the front end level. That is if a username/password is not written an error will be displayed and if there is a server issue another error will be displayed.

After successfully logging/registering, the system will send the user to the front page where his name will be displayed and a logout button will be shown. The logout button logs the user out and shows him the first page again.

Besides the logout button, an add post button is added. This page is inaccessible if nobody is logged in the system, even if they have the direct url.

After entering a title, text and a url, which are all mandatory, a new post will be created.

Monitoring

For Grafana:

<http://18.194.150.70:3000/login>

There is one dashboard that checks the ping duration

The Prometheus metrics:

<http://18.194.150.70:3000/metrics>

Using the IAM AWS user the following logs can be checked after login:

- The ElasticBeanstalk system logs which show the error that the system had and also the normal access logs.
- The ElasticBeanstalk health status which shows if the system is down/up and the reason behind this
- The CodePipeline status
- The ElasticBeanstalk monitoring dashboard which shows the following
 - Environment health
 - CPU utilization
 - Max network in/out
- The RDS(database) monitoring dashboard
 - CPU utilization
 - Free storage space
 - Write IOPS
 - Read IOPS
 - And much more

The login url for the IAM user:

<https://940868410577.signin.aws.amazon.com/console>

Issues

Issues with the system can be opened here:

<https://github.com/ovi28/fallproject/issues>