

# Digital Diary

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CSCI 5828

Foundations of Software Engineering

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# Project Overview

- A journaling / personal blog site
  - A user can write posts which they can view and edit later
  - Each post has a title, text content, an (optional) image, and 0 or more tags
  - From the home page, a user can
    - View their recent posts
    - Search for posts containing some keywords
    - Search for posts with some tag
    - Browse through a calendar of their posts

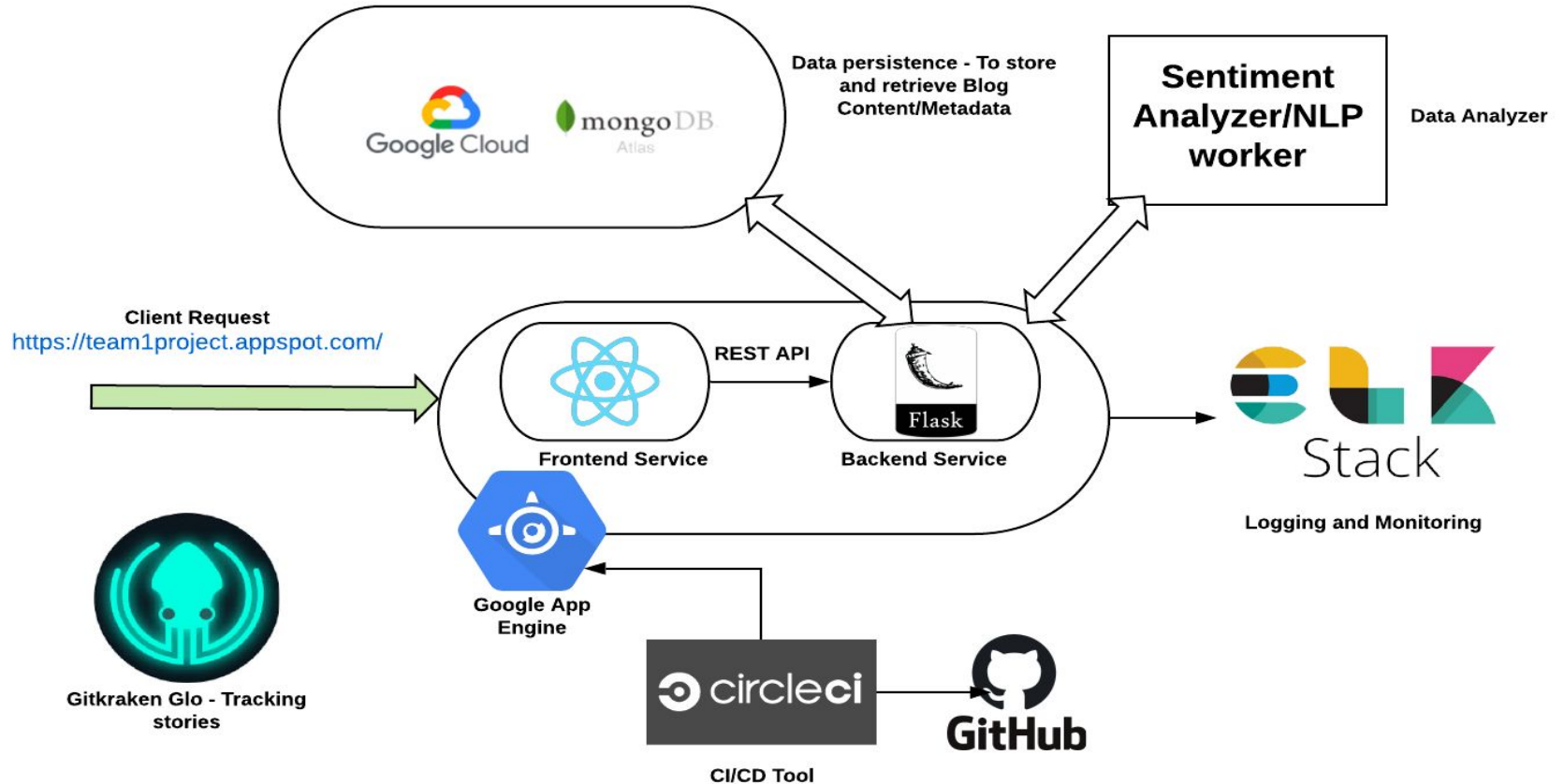
# Project Overview

- Coordination
  - We used GitKraken Glo to manage user stories for each iteration
  - Met in person at the start of the semester
  - Communicated mostly using Slack/Zoom after campus was closed
- Work distribution
  - Akash - Backend
  - Eoin - DevOps, full stack
  - Janani - Full stack
  - Vandana - Frontend, UI design

# Technologies Used

- GitKraken Glo - Project Planning
- Python/Flask - Back-end
- Gunicorn - WSGI server
- Pytest - Testing Tools
- MongoDB - Data Persistence
- React/HTML/CSS - Front-end
- NPM / PIP - Build tool
- Google Cloud Platform - Production
- Google App Engine - Deployment
- CircleCI - CI/CD
- ELK - Logging and Monitoring

# Architecture



# CI/CD Builds

JOBS

SUCCESS

master #104

Add backend tests (#20)

main

deploy

20 hr ago

03:52

6bdbb97

SUCCESS

master #103

Add backend tests (#20)

main

build-and-test

20 hr ago

00:10

6bdbb97

SUCCESS

search #102

Add backend tests

main

build-and-test

20 hr ago

00:06

#20

68f980d

SUCCESS

master #101

Merge pull request #19 from EoinDoherty/css-changes

main

deploy

2 days ago

01:31

07ab8b0

SUCCESS

master #100

Merge pull request #19 from EoinDoherty/css-changes

main

build-and-test

2 days ago

00:09

07ab8b0

SUCCESS

css-changes #99

Added CSS styling to pages

main

build-and-test

2 days ago

00:06

#19

ce49262

SUCCESS

master #98

Merge pull request #18 from EoinDoherty/Search-image

main

deploy

2 days ago

01:57

0d26c33

SUCCESS

master #97

Merge pull request #18 from EoinDoherty/Search-image

main

build-and-test

2 days ago

00:09

0d26c33

SUCCESS

Search-image #96

Image displayed for the post during Search

main

build-and-test

2 days ago

00:10

#18

30bbaae

SUCCESS

master #95

Merge pull request #17 from EoinDoherty/jan/local

main


deploy


2 days ago

01:51



a54a04b


# CI/CD Builds

 **New:** You can now get web notifications when your job is done! [Click here to activate web notifications.](#)

 **This UI is being deprecated!** Opt in to try the new experience. The majority of our users find it easier to fix failing builds. [Opt In](#)

Jobs » EoinDoherty » 5828\_Team1 » master » 101 (deploy)

 Rerun workflow 


 **SUCCESS**

Finished: 2 days ago (01:31)


Previous: 100

Parallelism: 1x out of 0x



Queued: 00:00 waiting + 00:17 in queue

Resources:  2CPU/4096MB

Workflow: [main](#)

Context:  [N/A](#)

Triggered by: *Unknown* (pushed [07ab8b0](#))

- COMMITTS (2)
- [Vandana Sridhar](#)  [ce49262](#) Added CSS styling to pages
- [Vandana Sridhar](#) [GitHub](#)  [07ab8b0](#) Merge pull request [#19](#) from EoinDoherty/css-changes

Test Summary

Configuration

Timing

Parameters

Set Up Test Summary

Show containers: [All \(1\)](#) [Successful \(1\)](#) [Failed \(0\)](#)



# ELK - Kibana Dashboard





# Demo

# Future Work

- Custom journal styling
- Text styling (underline, italicize, etc.)
- Sharing posts with other users (Social Networks etc)
- Docker / kubernetes deployment

# Retrospective

1. We had a lot of prior experience with python.
2. Using a PaaS let us focus on our app without having to configure (many) low level details.
3. Completely separating backend and frontend made development a lot easier.
4. CI/CD made deployment easy; just push to master

1. Some hiccups with different python environments.
2. Automated deployment was difficult to set up and understand.
3. Overestimated what we could finish in the time we had.
4. Setting up ELK

1. Communication between team members.
2. Google App engine can be limiting
3. Took a while to understand React
4. We don't have much experience with frontend development; had to learn as we built our application

Questions?