

StudyBoard

Software Design Presentation

Team Members

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Problem Summary

Premise

- People often turn to the internet to answer their questions

Issue

- Time → Might be able to find an answer in five minutes or five hours
- Reliability → Answers might be vague, factually incorrect, or poorly explained

Problem Solution

StudyBoard

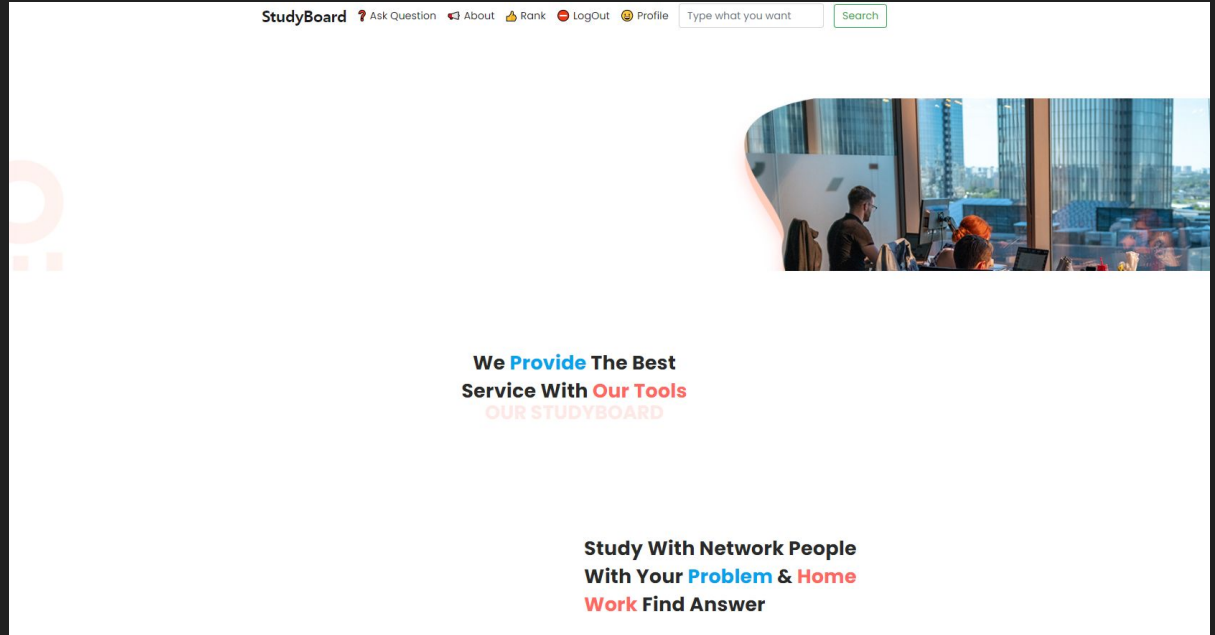
- Web platform where users can post and answer questions freely.

StudyBoard - Major Features

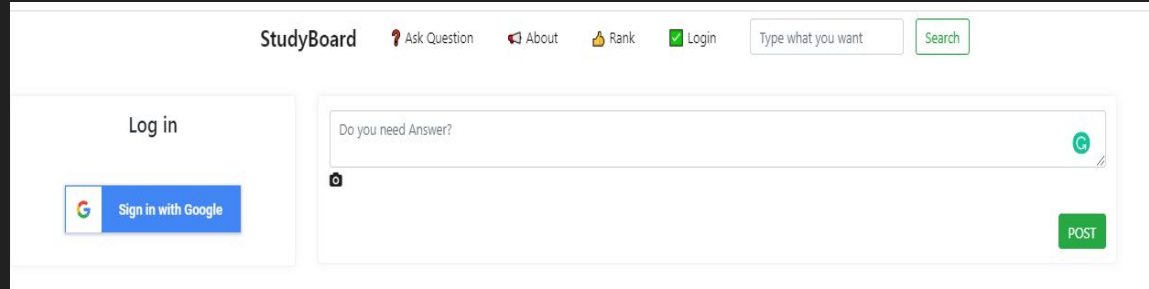
- Sign In with Google
- Post a question
- Reply to a question/reply
- Search for a question
- Interact with a question (Like, Favorite, Share, Report)
- Interact with a reply (Like, Report)
- Ranking System
- Moderators (Flagged posts, replies ; Users)

User Interface

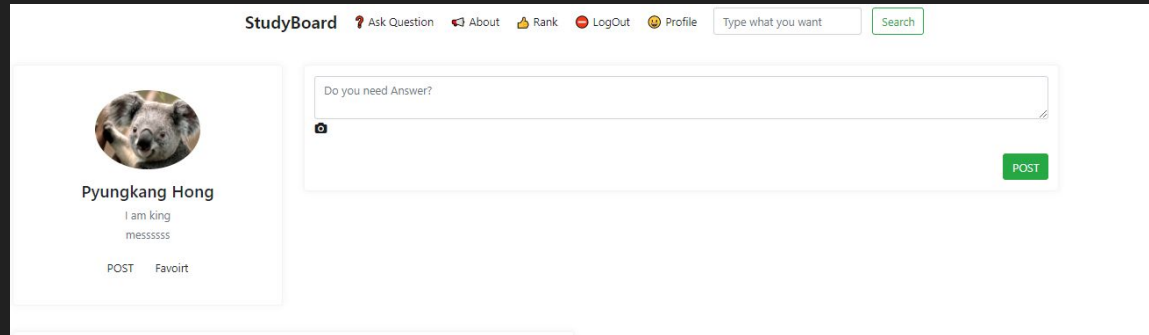
Home Page



User Interface




Sign In



User Interface


Post a Question



Pyungkang Hong
I am king
messsssss
POST Favoirt

Do you need Answer?

POST

 **Hawon Park**
1 min ago

I do not know what this question mean

The Problem of Word Definition

In the spoken language the problem cannot be solved this way.

If we listen to an unfamiliar language, we find it difficult to divide up the speech into single words.

Z score

Definition: - How many standard deviations above or below the mean. This is given to you on your formula sheet.

$$z = \frac{x - \mu}{\sigma}$$

x = the value in the data set
 μ = mean
 σ = standard deviation

Example 3:
On the math placement test at Memorial University of Newfoundland, the mean score was 62 and the standard deviation was 11. If Mark's z-score was 0.8, what was his actual exam mark?

$z = \frac{x - \mu}{\sigma}$
 $0.8 = \frac{x - 62}{11}$
 $z = 0.8$
 $\mu = 62$
 $\sigma = 11$
 $x = ?$

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User Interface

Reply to Question

StudyBoard

[Ask Question](#) [About](#) [Rank](#) [LogOut](#) [Profile](#)

Type what you want

Search

Z score

Definition - How many standard deviations above or below the mean. This is given to you in your formula sheet

$$z = \frac{x - \bar{x}}{\sigma}$$

\bar{x} = The mean of the dataset
 σ = Standard deviation

The Problem of Word Definition


In the spoken language the problem cannot be solved this way.

If we listen to an unfamiliar language, we find it difficult to divide up the speech into single words.

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3

Help me for this mat question

 **Hawon Park**
26 FEB 2020


I do not know this question please look in to it

MathHardHelpMeaningofquestion


Comment panel

write a comment...


Post

 **Pyungkang Hong**
12a + 26b - 4b - 16a, = 12a - 16a + 26b - 4b, = -4a + 22b.

30 min ago

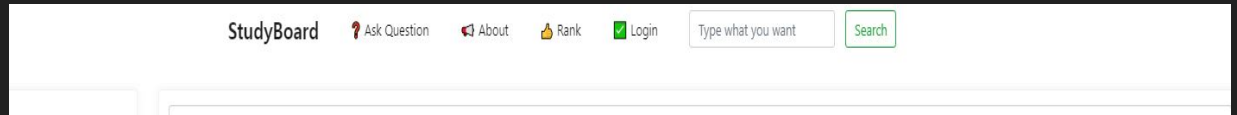
 **Jeasong Ho Shin**
You dont even know this question? hahah

30 min ago

**Pyungkang Hong**
I am king
messssss
POST Favoirt

User Interface

Search for Question



The image shows a horizontal navigation bar for a website called 'StudyBoard'. It features a logo on the left, followed by five navigation links: 'Ask Question' with a question mark icon, 'About' with a megaphone icon, 'Rank' with a trophy icon, and 'Login' with a checkmark icon. To the right of these links is a search input field with the placeholder text 'Type what you want' and a green 'Search' button.


StudyBoard

[? Ask Question](#) [📢 About](#) [🏆 Rank](#) [✅ Login](#)

[Search](#)

User Interface

Interact with Question




Pyungkang Hong
I am king
messssss
POST Favoirt

Do you need Answer?

0

POST

 **Hawon Park**
1 min ago

I do not know what this question mean

The Problem of Word Definition

In the spoken language the problem comes for solved this way.

If we listen to an unfamiliar language, we find it difficult to divide up the speech into single words.

$$z = \frac{x - \mu}{\sigma}$$

3

Z SCORE

• Definition - How many standard deviations above or below the mean. That is given to you on your formula sheet.

$$z = \frac{x - \mu}{\sigma}$$

z = ? The value that tells you
z = mean
z = standard deviation

Example 3:
On the math placement test at Memorial University of Newfoundland, the mean score was 62 and the standard deviation was 11. If Mark's z-score was 0.8, what was his actual exam mark?

$$z = \frac{x - \mu}{\sigma}$$

$$0.8 = \frac{x - 62}{11}$$

$$z = 0.8$$

$$\mu = 62$$

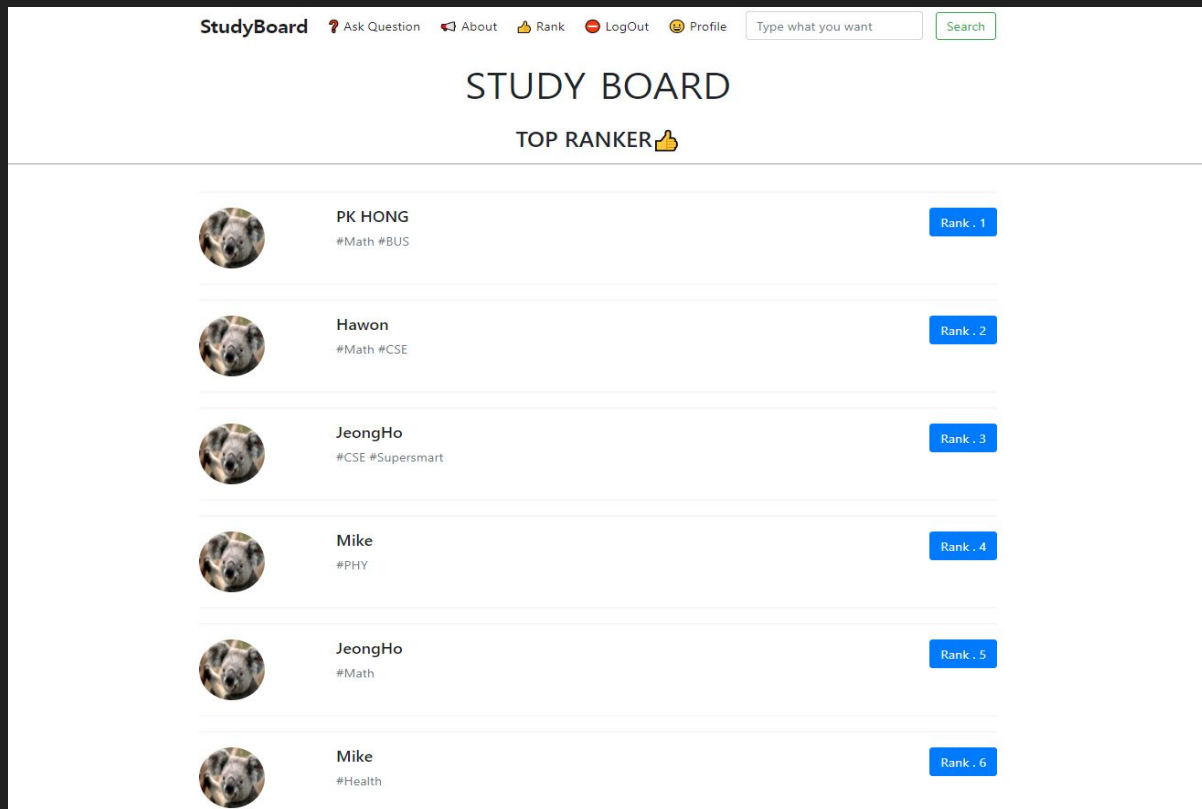
$$\sigma = 11$$

$$x = ?$$

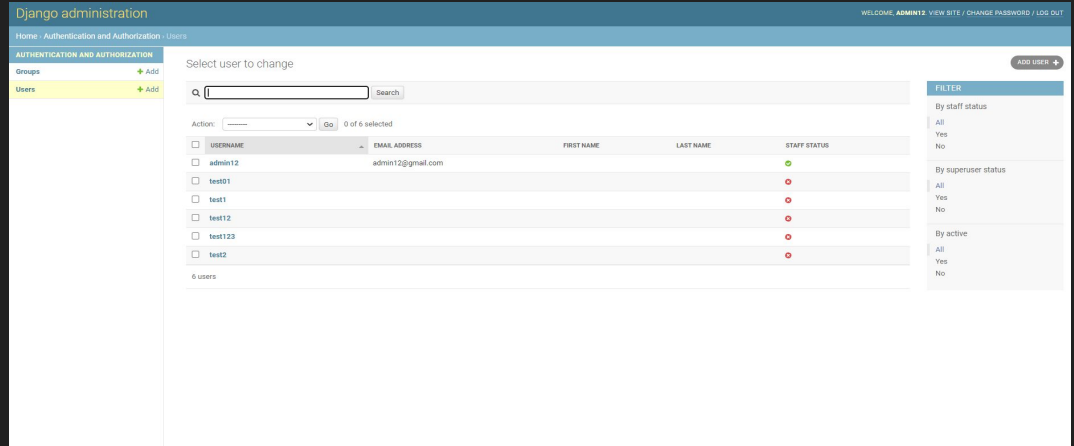
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User Interface

Ranking System



User Interface



Moderators

Site administration

AUTHENTICATION AND AUTHORIZATION		
Groups	+ Add	✎ Change
Users	+ Add	✎ Change

Recent actions

My actions

None available

System Architecture - Key Technology Choices

Django

- Python based web framework based on the MVT design pattern
- High Scalable, Highly popular w/ many libraries

Bootstrap

- Open source HTML/CSS framework (frontend)
- Extensive documentation on UI/UX design

AWS Cloudfront

- Secure and scalable CDN
- Fast data transfer, Global service

System Architecture - Key Technology Choices

Google OAuth 2.0

- Used in conjunction with Django-Auth for easy sign up / login

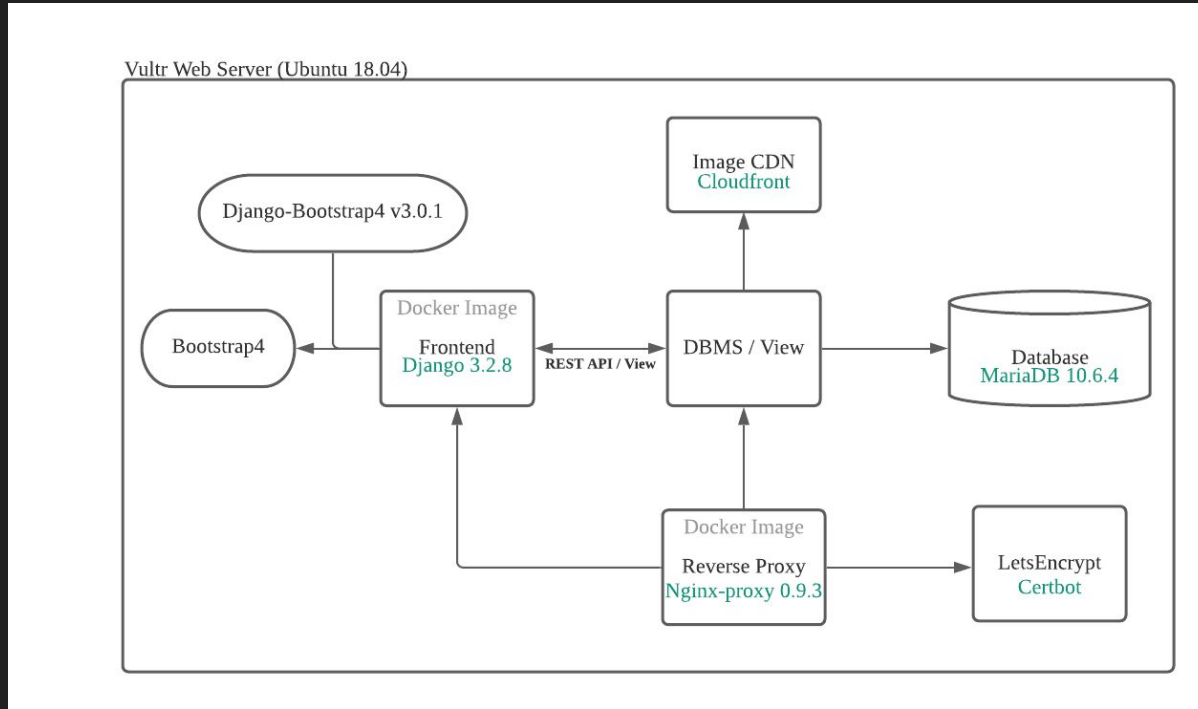
Docker

- Consistent and isolated environments
- Flexible, Scalable, Modular

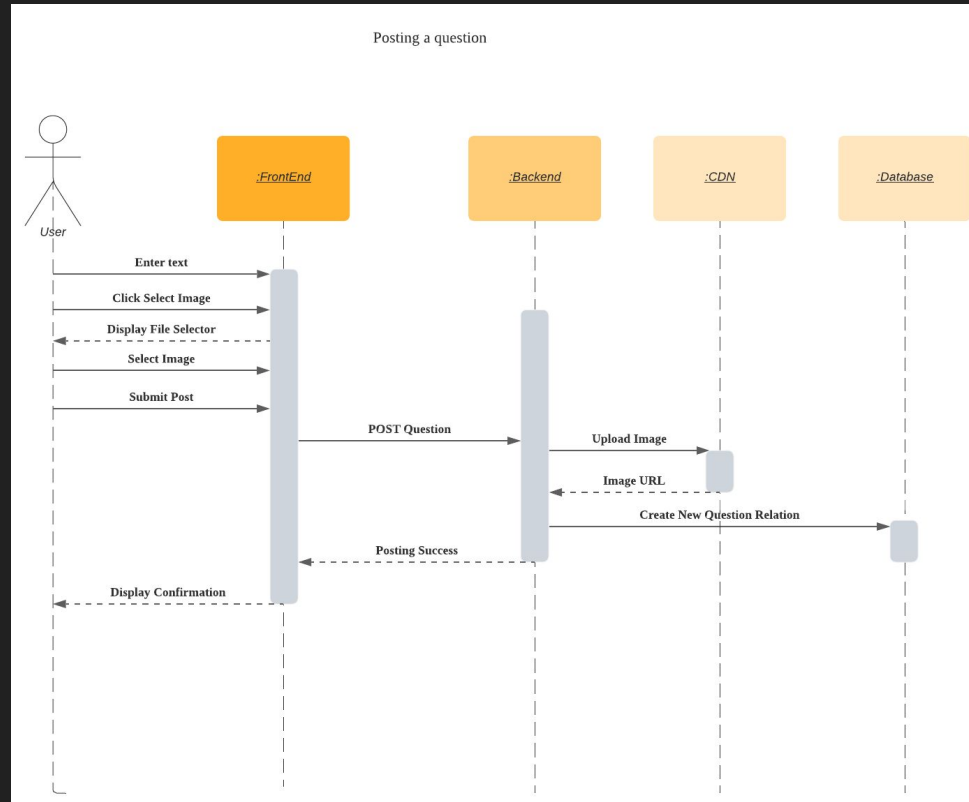
Nginx-Proxy

- Contains Nginx and Docker-gen
- Automated reverse proxy configurations whenever containers are started and stopped

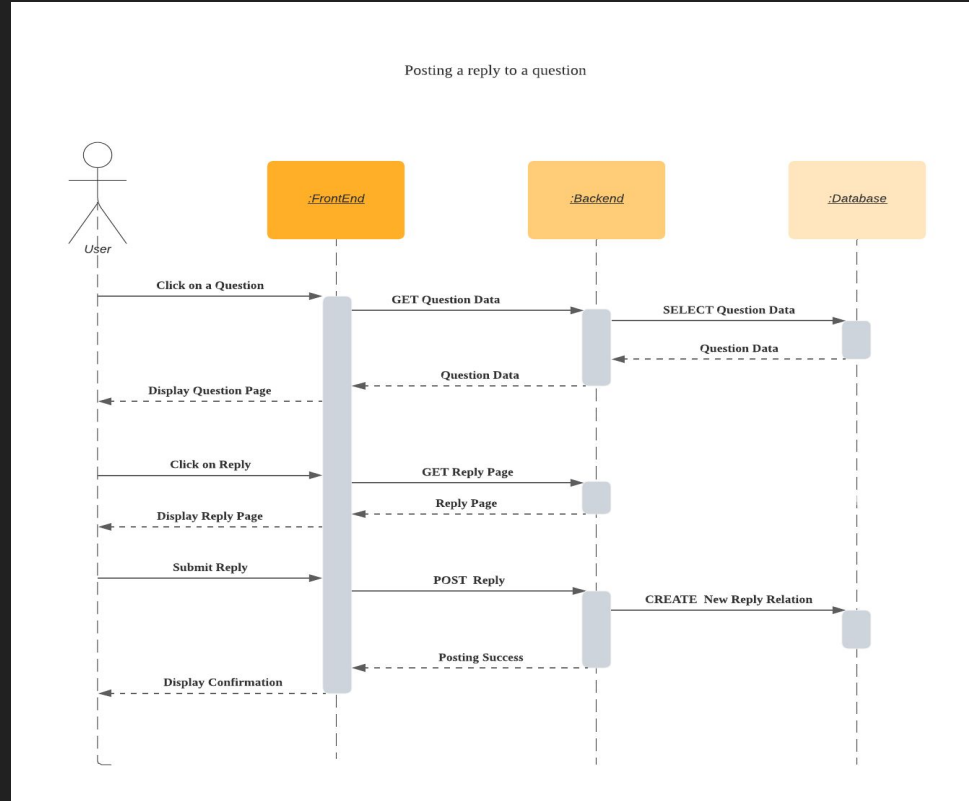
System Architecture - High Level Overview / Deployment



UML Sequence Diagrams - Post



UML Sequence Diagrams - Reply



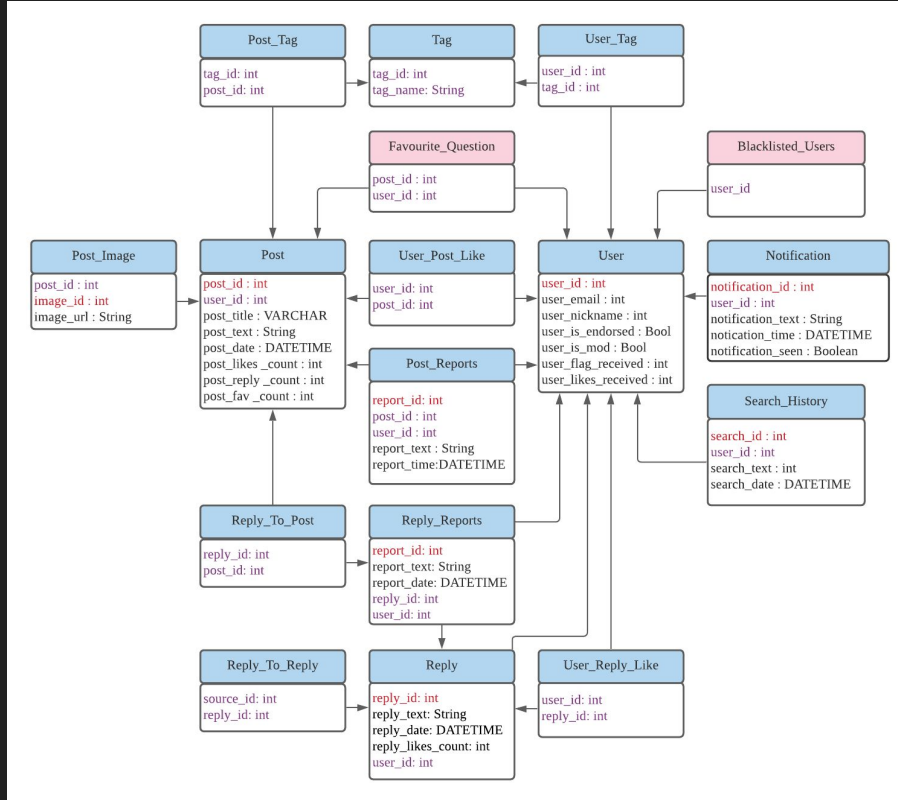
Simplified Data Design

Updates/Changes in Data Design

- + Favorites Function
- + Blacklist User Function
- Shared Function

Simplified Data Design

Arrows indicate foreign keys
Red Text → Primary Key
Purple Text → Foreign Key



API Design

- + Consolidate Profile into one api call
- + Add missing API calls
- + Consistent Naming Scheme (collections in plural, singular item)
- Deleted unnecessary API calls

[Link](#)

Summarized Schedule

Milestone 1	Milestone 2	Milestone 3	Milestone 4	Milestone 5	Milestone 6	Final
Nonfunctional Web Views	50% of Functional Requirements	100% of Functional Requirements	User Feedback	Feedback Changes; Bug Fixes	Goal is to finish by this date	Polish kinks & Submit
Initial DBMS Server Setup	Populate DBMS w/ Test Data	Alpha Test	Beta Test	Reverse Proxy Deployment		

Thank you!

Any questions?