Async

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Project Description

The Async website is a online platform for classrooms that integrates course groups with organizational features.

An easy-to-navigate-UI is emphasized so that key features like the calendar system, activity feed, quiz, and discussion boards can be fully taken advantage of.

Async is built with Javascript, React, Firebase, Tailwind, and shadcn/ui.

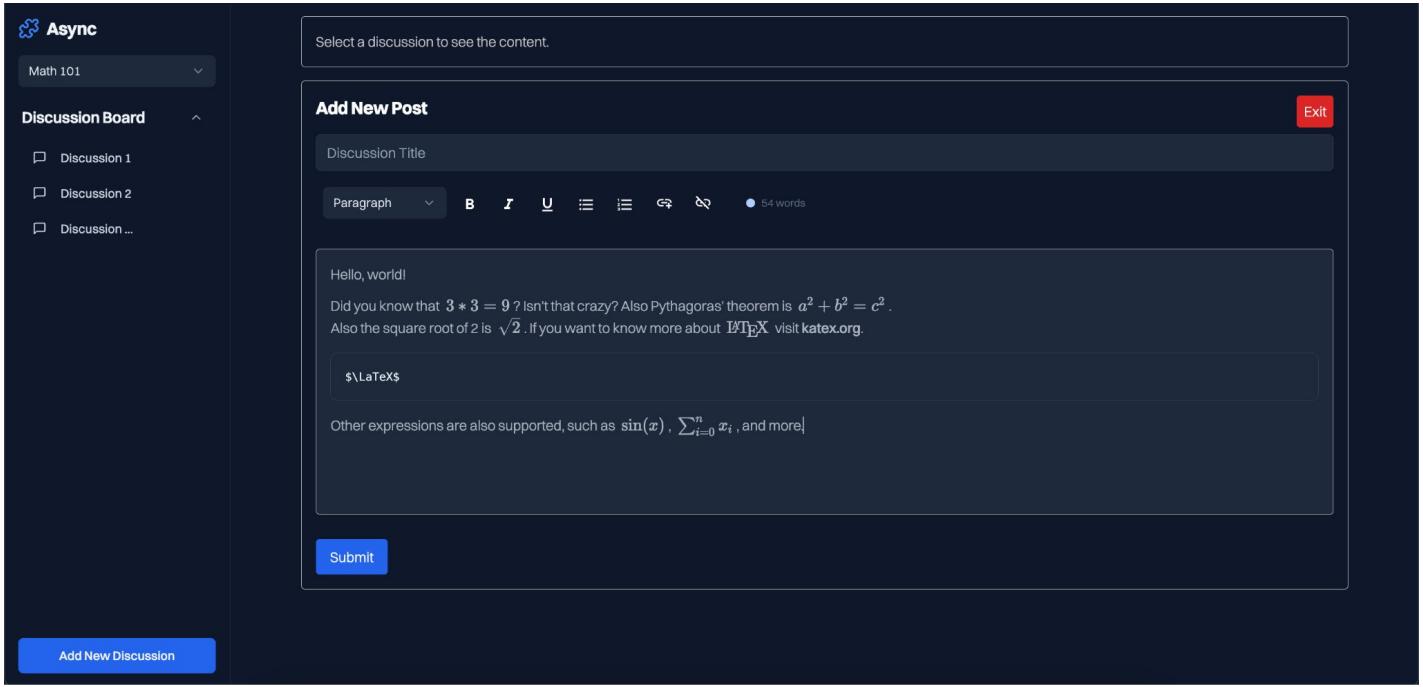
Project Goals

1. Create improved discussion board and collaboration features.
2. Design an intuitive, enjoyable, and accessible UI for users.
3. Implement user-authentication best-practices.
4. Improve our own skills in full-stack development.

Project Justification

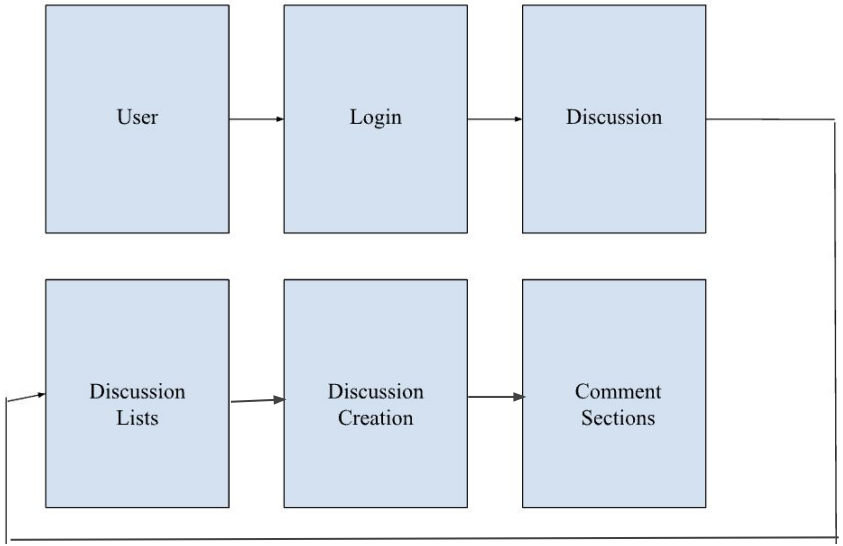
- We’re interested in this project because we all know how frustrating it can be to use applications like Brightspace, Canvas, etc..
- It is a good use of our abilities because each of us has different skills in front-end, back-end, or full stack development, making a full-stack application the right focus for us.
- This is a good opportunity for us to test our skills in full stack development and user interface.

Scenarios

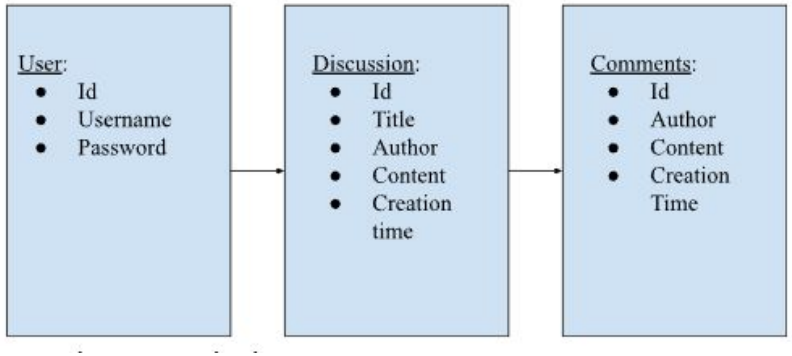

Async
Math 101
Discussion Board
Discussion 1
Discussion 2
Discussion ...
Add New Discussion
Select a discussion to see the content.
Add New Post
Exit
Discussion Title
Paragraph
54 words
Hello, world!
Did you know that $3 * 3 = 9$? Isn't that crazy? Also Pythagoras' theorem is $a^2 + b^2 = c^2$.
Also the square root of 2 is $\sqrt{2}$. If you want to know more about LaTeX visit katex.org.
$\LaTeX$
Other expressions are also supported, such as $\sin(x)$, $\sum_{i=0}^{n} x_i$, and more
Submit

Detailed Discussion Diagrams

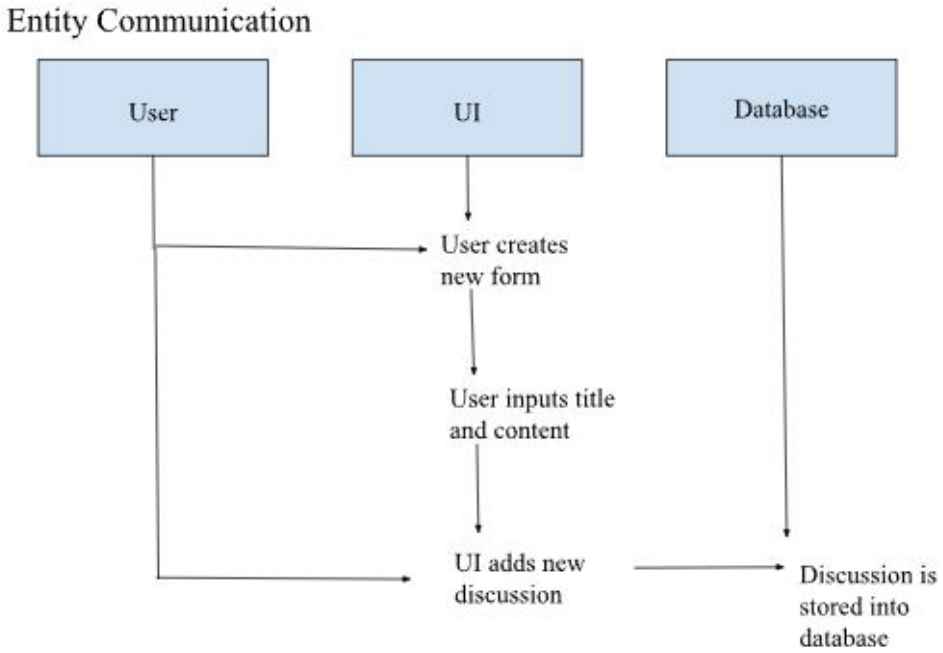
UML Diagram (Front-End)



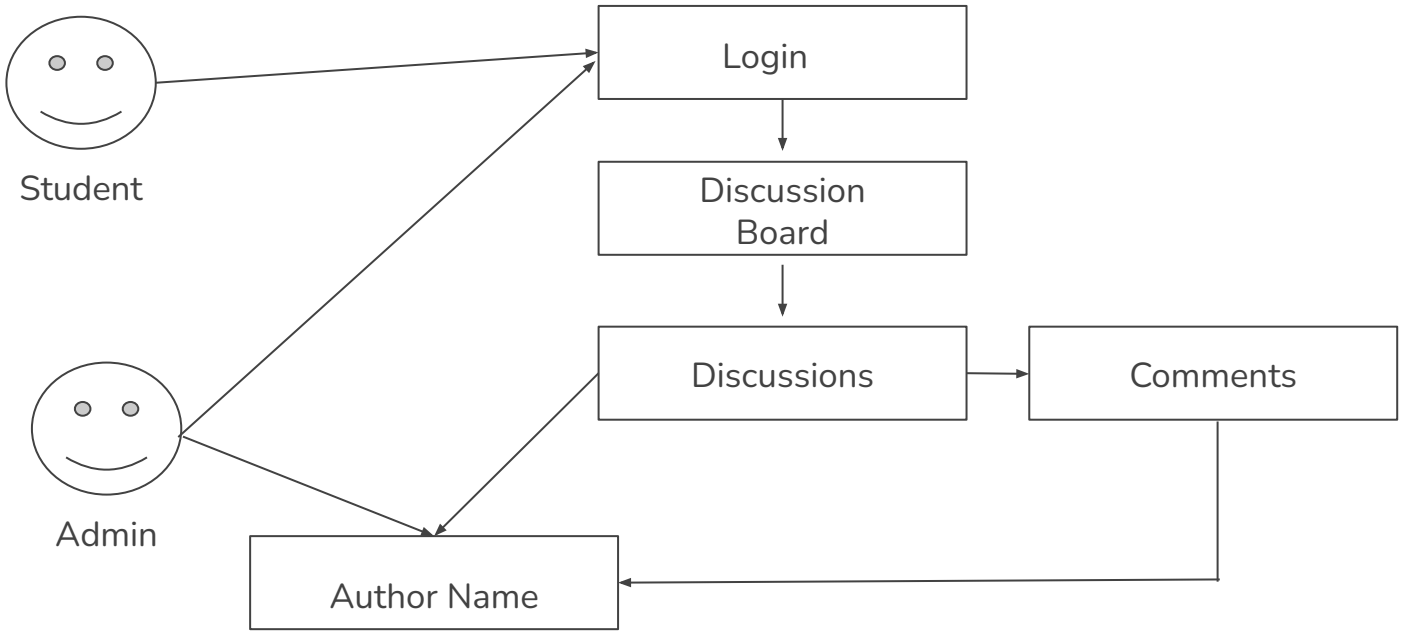
Entity Database Interactions



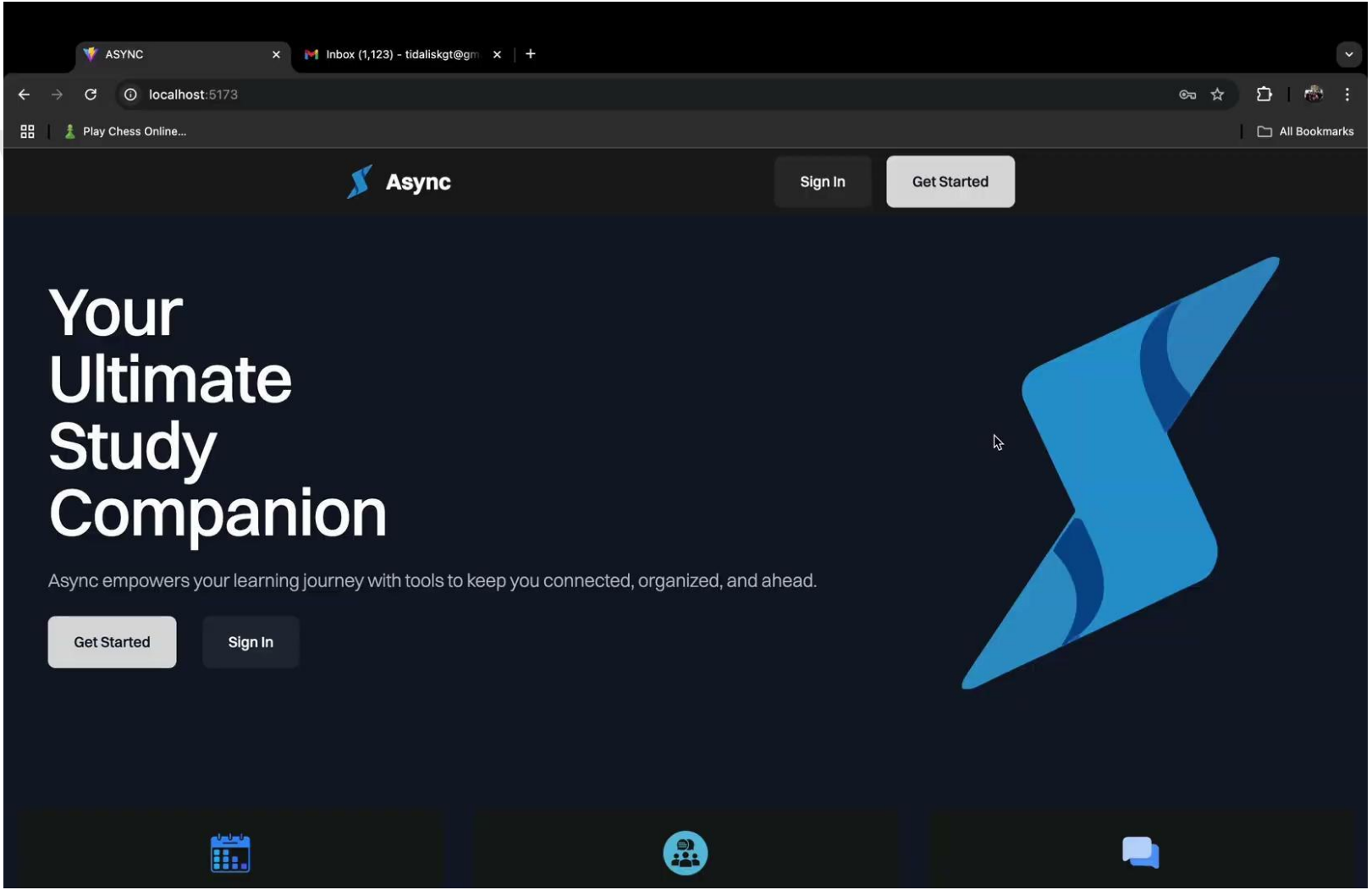
Discussion Diagrams cont.

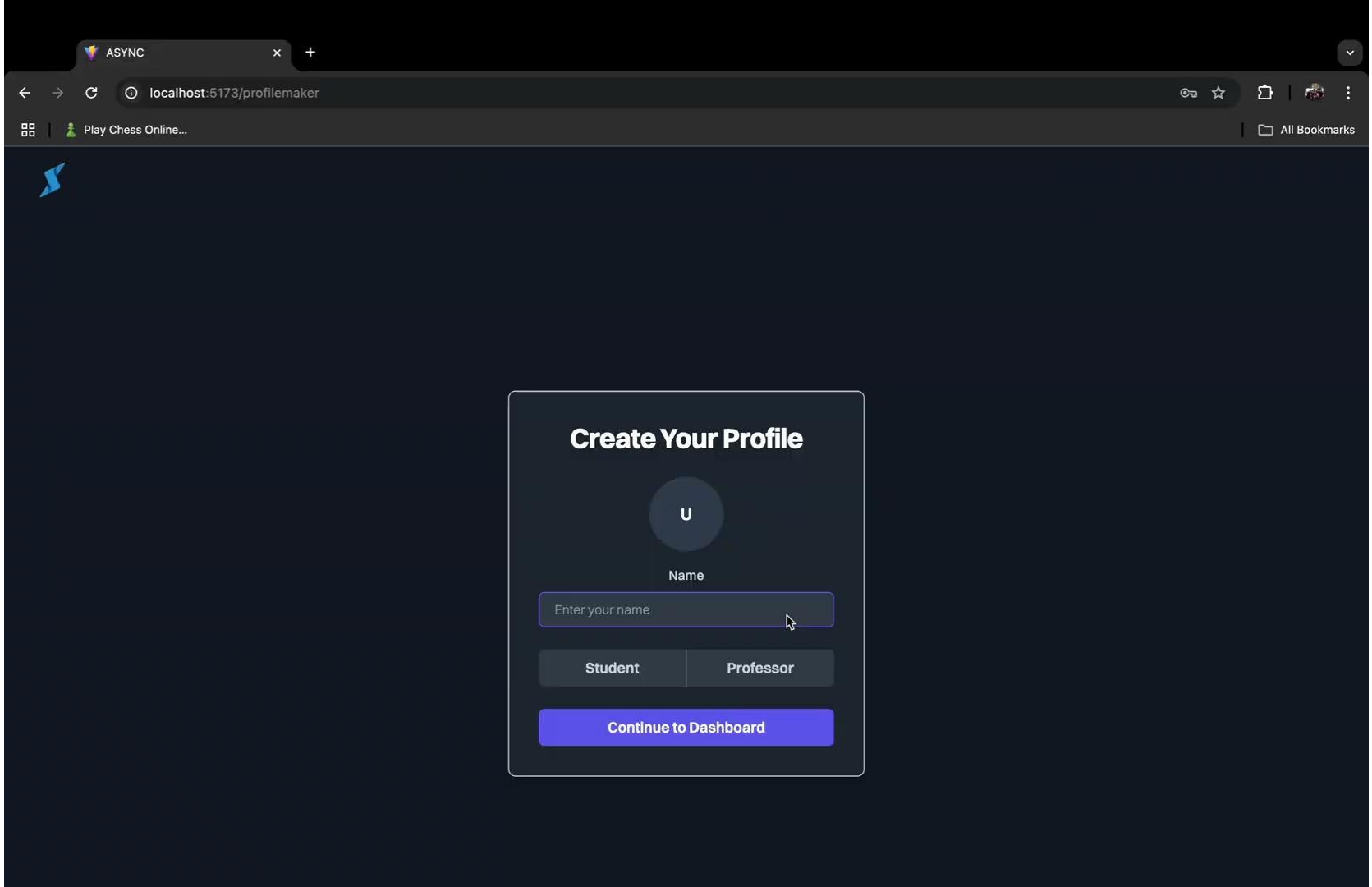


Use-case Diagram



Demo


ASYNC
Inbox (1,123) - tidaliskgt@gm
localhost:5173
Play Chess Online...
All Bookmarks
Async
Sign In
Get Started
Your Ultimate Study Companion
Async empowers your learning journey with tools to keep you connected, organized, and ahead.
Get Started
Sign In


ASYNC
localhost:5173/profilemaker
Play Chess Online...
All Bookmarks
Create Your Profile
U
Name
Enter your name
Student
Professor
Continue to Dashboard

Project Challenges

Front-End:

- Creating separate layouts for students and teachers added to overall workload.
- Designing discussion board content and layout- balance between being descriptive enough but not too dense.
- Determining which features to prioritize

Backend:

- With much of our work time spent on making the different front-end view, we quickly realized that opting for an approach like Firebase was better given the time we had left in the semester.
- More groupmates felt comfortable with Firebase and there was a lot of confidence in setting it up quickly.

Status Update

Completed

- User Login/Authentication
- Moderation
- Basic Rich Text Editor features
- Added Mathematics Support
- Calendar and notifications

In-Progress

- Further QOL text editor improvements (tables, drag handles, file, images)
- Improve Discussion Board Layout
- Polls and Quizzes
- Activity Feed

Thank you and questions