



Blind Match



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1 Problem Statement

We aim to create a platform for users seeking genuine connections and discussions without the influence of popularity-driven algorithms. Our tool will foster supportive communities by emphasizing user compatibility over marketability. We aim to equip our application with all the classic social media

2 Problem Background

In the digital age, social media platforms often prioritize content creation and influencer culture, neglecting the need for genuine, platonic relationships based on shared interests.[3] This has created a gap for users seeking meaningful interactions, leading to increased feelings of loneliness and social isolation.[1] There is a crucial need for a platform that emphasizes real connections over popularity, providing a supportive community for those seeking more substantial and fulfilling social engagements. We want to go beyond the building of communities and help individuals find those they can connect with.

3 Objectives

Scale the platform to support at least 200 simultaneous users without compromising performance.

Implement a comprehensive unit testing framework with a minimum of 70% code coverage to ensure functionality.

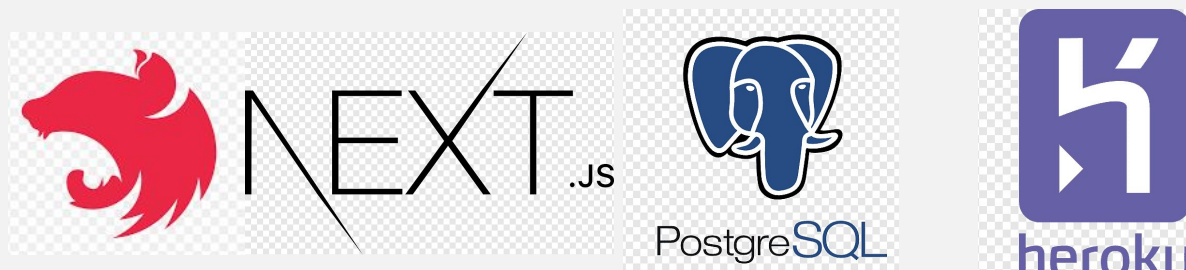
Test and improve the matching algorithm accuracy to reach 75%.

Optimize API performance to handle over 150 requests per second, maintain response times under 12 ms, and keep error rates below 2%.

Create a secure sign up process that can detect bots and keep them from creating accounts. We will try to keep the bot to user ratio at less than 50%.

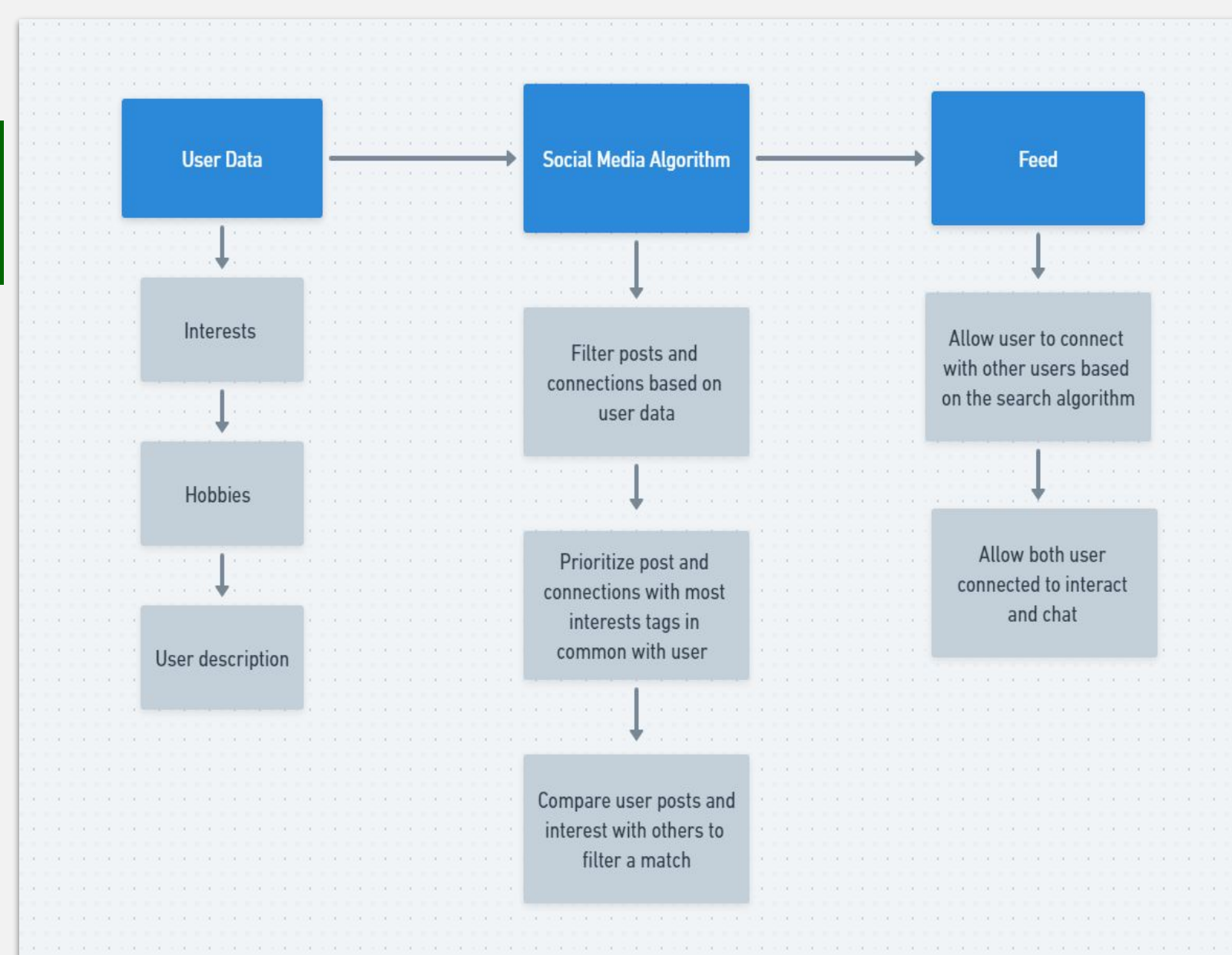
4 Technical Approach

System Architecture:



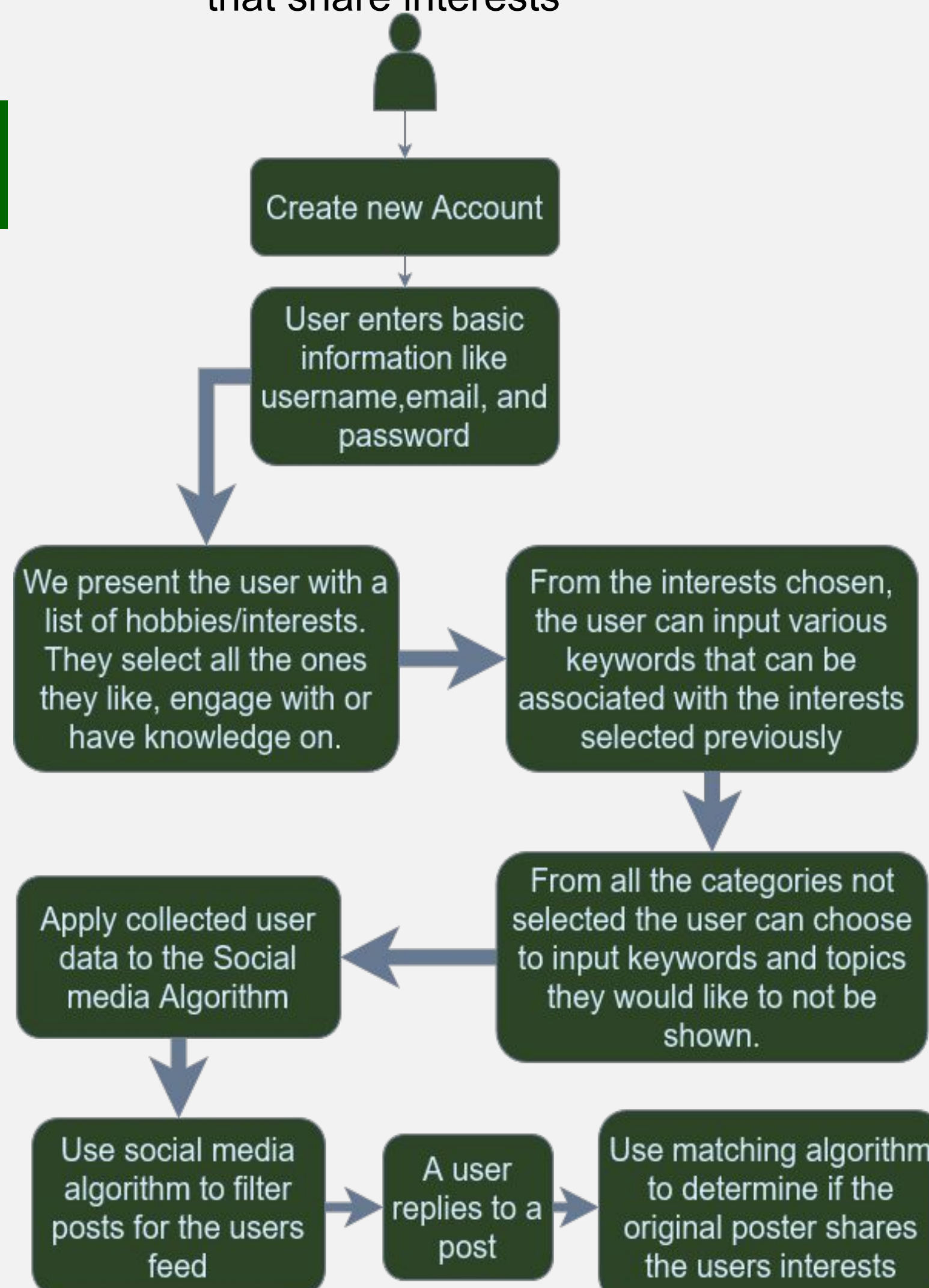
Social Media Algorithm[2]

- Feed Ranking
- User Behavior Analysis
- Moderation



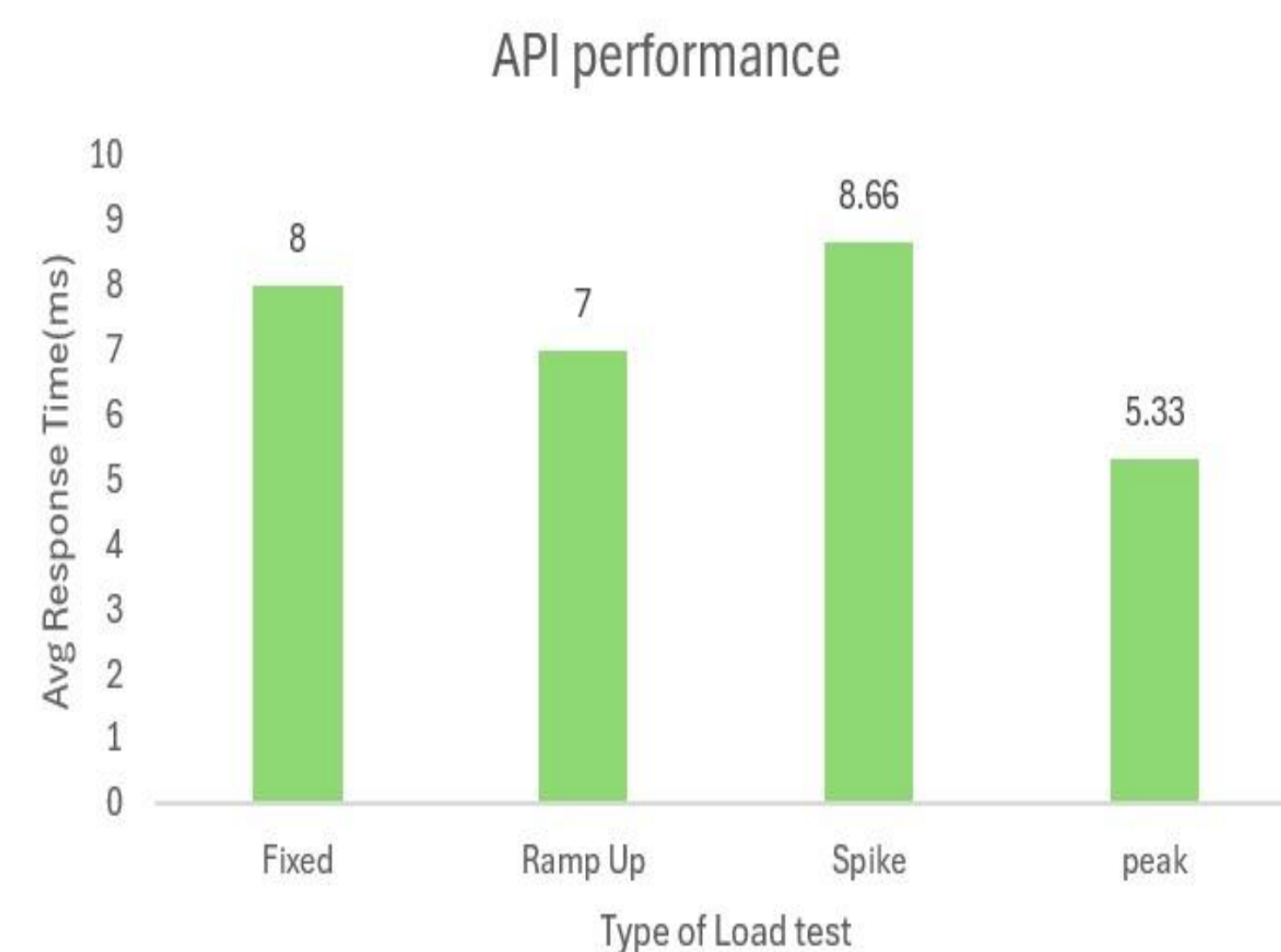
Matching Algorithm

- User inputs hobbies and interests
- Encourage user to post about them
- Find posts that relate to each other
- Present posts to user from others that share interests

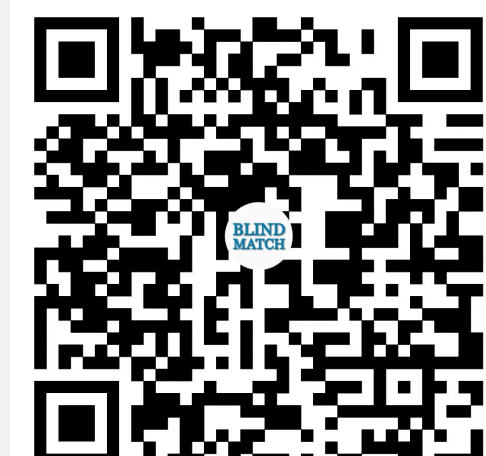


Flow Chart for the account creation process and how it will be used to adjust the algorithms to each user

5 Results



Graph representing the average response time for all API calls with 100 simultaneous users.



6 Conclusion

Blind Match aims to be a different and innovative approach to making connections between people through social media. Our platform utilizes Nest JS and PostgreSQL to create a secure, scalable full-stack application paired with two search algorithms for matching content. The platform will be prioritizing security and efficient data management, to create a seamless experience for the user to express themselves and meet like minded users. With this platform we hope to reach many people from different backgrounds and give them a tool to come together.

References

1. Washington Post. (2023, July 3). Adult friendship online: Bumble meetup. Accessed Mar. 28, 2024, from <https://www.washingtonpost.com/technology/2023/07/03/adult-friendship-online-bumble-meetup/>
2. I. Orihuela, "Deep dive into having a custom post ranking algorithm," Medium, Accessed Feb. 10, 2024, from https://medium.com/@italo_2018/deep-dive-into-having-a-custom-post-ranking-algorithm-6ca4eb78d5cc
3. Aic. team, "The impact of social media algorithms on content distribution," AIContentfy, Accessed Feb. 8, 2024, from <https://aicontentfy.com/en/blog/impact-of-social-media-algorithms-on-content-distribution>