



Knight Foundation  
School of Computing  
and Information Sciences

Knight Foundation School of Computing and Information  
Sciences

Summer 2023 Capstone II Project

Free Food FIU

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PROBLEM

Food waste is a prevalent issue on college campuses, while simultaneously, some students face food insecurity. Our project aims to bridge this gap by creating a platform that connects students with campus events offering free food. The goal is to reduce food waste by encouraging the redistribution of surplus food and to help address food insecurity by providing students with access to nutritious meals.

IMPLEMENTATION

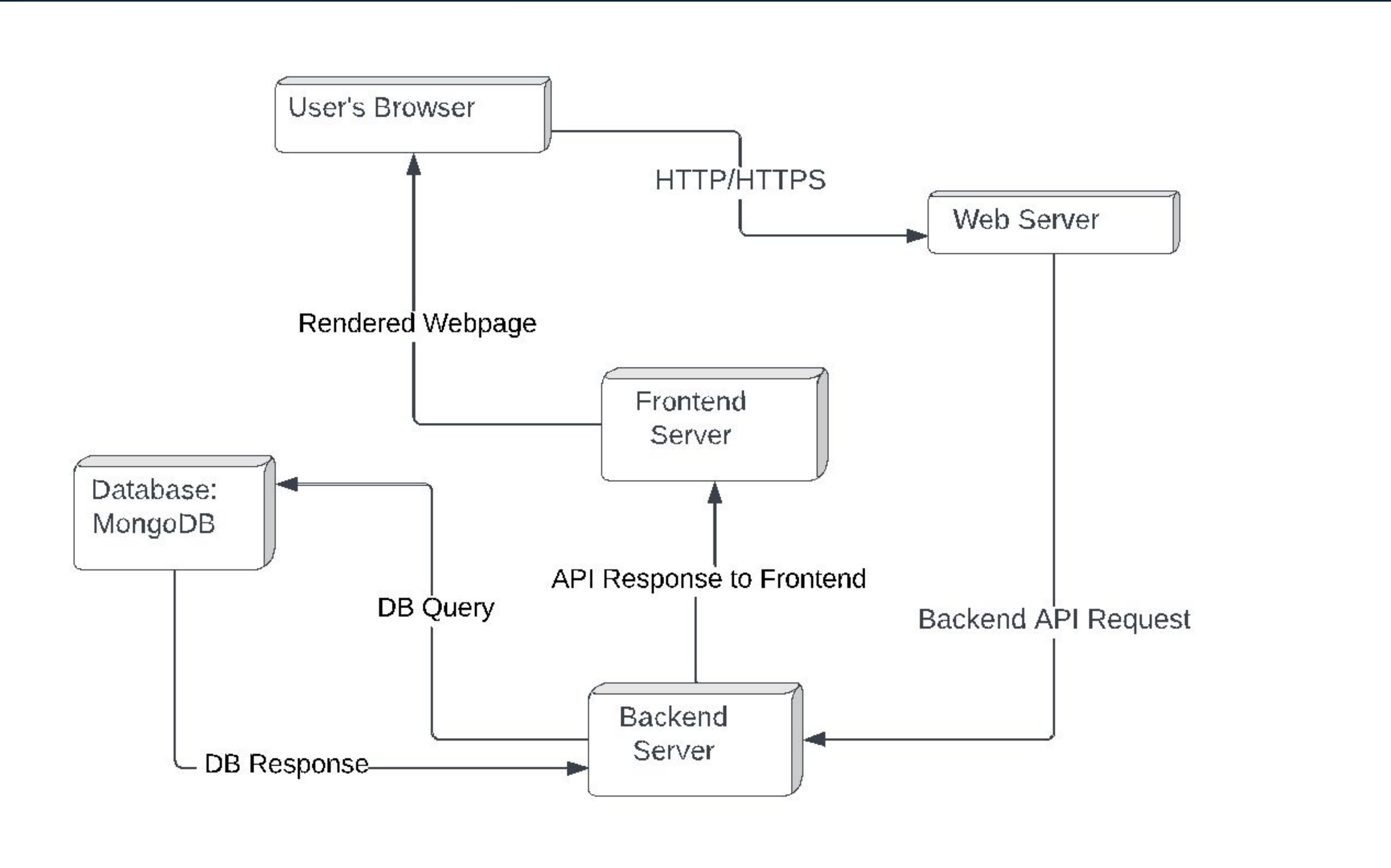
- MERN Web App Stack:** The platform was developed using the MERN (MongoDB, Express, React, Node.js) web app stack, which provides flexibility and efficiency for our project requirements.
- Database Connectivity:** Assisted in establishing initial connectivity with the MongoDB database, designing and implementing the backend with controllers, models, and routes for user and food event collections.
- User Registration and Login Pages:** Developed frontend functionality for the user registration and login pages, ensuring a smooth and secure onboarding process for users.
- Event Search Functionality:** Implemented frontend functionality for searching events based on various criteria, such as location, event name, and hosting organization, empowering students to find relevant food-sharing opportunities easily.
- About Page:** Developed the frontend for the "About" page, providing users with information about the project's mission, objectives, and the team behind it.

FUTURE DIRECTIONS

- Implementing user-generated content features, allowing event attendees to post pictures and reviews of the food-sharing events.
- Enhancing event notifications and reminders to keep users informed about upcoming food events.
- Expanding the platform's reach by exploring possibilities for collaboration with local businesses and organizations.
- Implementing user feedback and continuous improvements based on user experiences and suggestions.

REQUIREMENTS

- Database Management System:** A robust MongoDB database to store information about users, food events, and event details.
- Frontend Development:** A user-friendly interface to enable students to search for events based on location, food type, and hosting organization.
- Backend Development:** Implementing the backend with controllers, models, and routes to handle user registration, login, and event information updates.
- User Authentication:** Secure user registration and login functionalities to maintain user privacy and data integrity.
- Quality Assurance and Testing:** Rigorous testing to ensure the platform's functionality, usability, and data accuracy.



IMPACT

- By providing a centralized platform for sharing information about free food events, we aim to reduce food waste and promote a sustainable campus environment.
- The platform will contribute to addressing food insecurity among students by offering a valuable resource for accessing nutritious meals.
- Empowering students to actively participate in food-sharing events will foster a sense of community and encourage collective efforts to tackle pressing social issues.

CONTRIBUTIONS

- Successfully contributed to the project by understanding the MERN web app stack through dedicated research and learning from various online resources.
- Actively participated in feature development discussions and played a role in designing the platform's user interface.
- Contributed to the backend development tasks by implementing controllers, models, and routes for user registration, login, and food event information.
- Created an intuitive user experience by developing frontend functionalities for user registration, login, and event search.
- Helped enhance the platform's accessibility by providing a comprehensive search mechanism based on different event parameters.
- Contributed to building a user-friendly and visually appealing "About" page, communicating the project's purpose effectively.

CONCLUSION

Our food-sharing platform is a student-led initiative aimed at making a positive impact on college campuses. By fostering a culture of sharing and collaboration, we hope to create a more sustainable and inclusive environment, where students can make a difference and support one another. Together, we can address food waste and food insecurity while building a stronger and more caring campus community.

ACKNOWLEDGEMENT

Thank you to my team members for working diligently with me to realize this project:  
Carlos Manuel Moya Ramirez, Annie Nguyen, Jose Rodolfo Espinoza Garcia, and Brian Sanchez