



FOOD SURPLUS MANAGEMENT

Bridging the gap between food waste and consumers for lower rates

Team

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Need?

The United States discards more food than any other country in the world: nearly 60 million tons – 120 billion pounds – every year

Where our waste comes from:



43%

homes



40%

restaurants, grocery
stores, food service
companies



16%

farms



2%

manufacturers

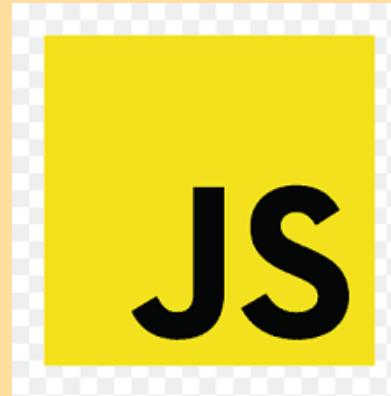
It is estimated that 35 million people across America are experiencing food insecurity. This includes 10 million children as well.



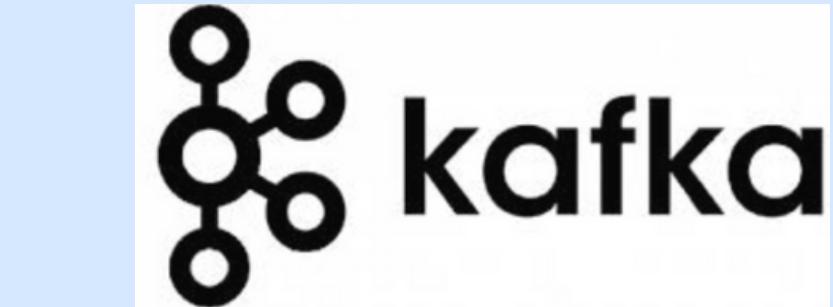
Our Solution

- Our project aims to reduce food waste and improve access to nutritious food.
- It will help bridge the gap between food surplus and food insecurity by connecting donors with recipients, leveraging technology, and raising awareness.
- It creates a more sustainable and equitable food system that benefits both producers and consumers.

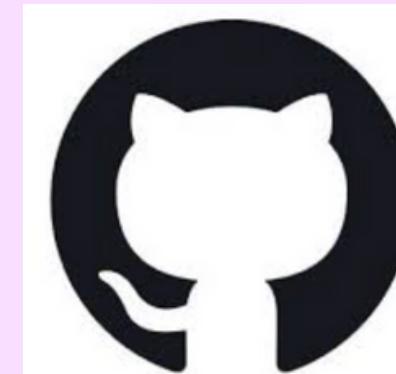
Front-end Tools



Back-end Tools



Team-Management Tools



User APIs

1 Post

`user/createUser`

To create a user

2 Post

`user/loginUser`

To login existing user

3 Get

`/user/listFoodItems`

To view the available food items

4 Post

`/user/orderCartItems`

To order the cart items

Donor APIs

1 Post

`donor/createDonor`

To create a donor

2 Post

`donor/loginDonor`

To login existing donor

3 Delete

`/donor/deleteFood`

To delete the previously added food entry

4 Post

`/donor/addFoodItems`

To add a new food item

5 Put

`/donor/updateFoodItem`

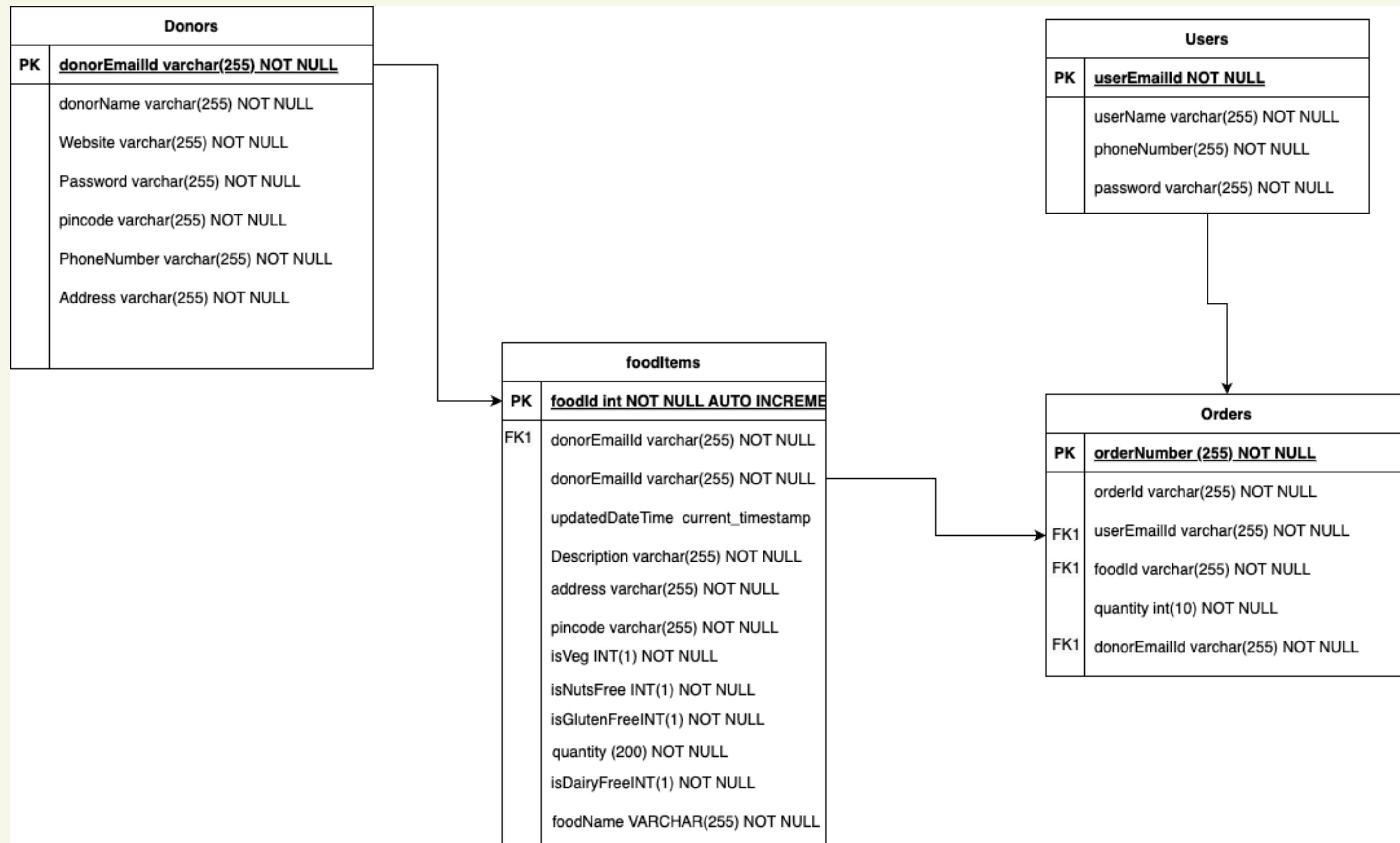
To update the existing food entry

6 Get

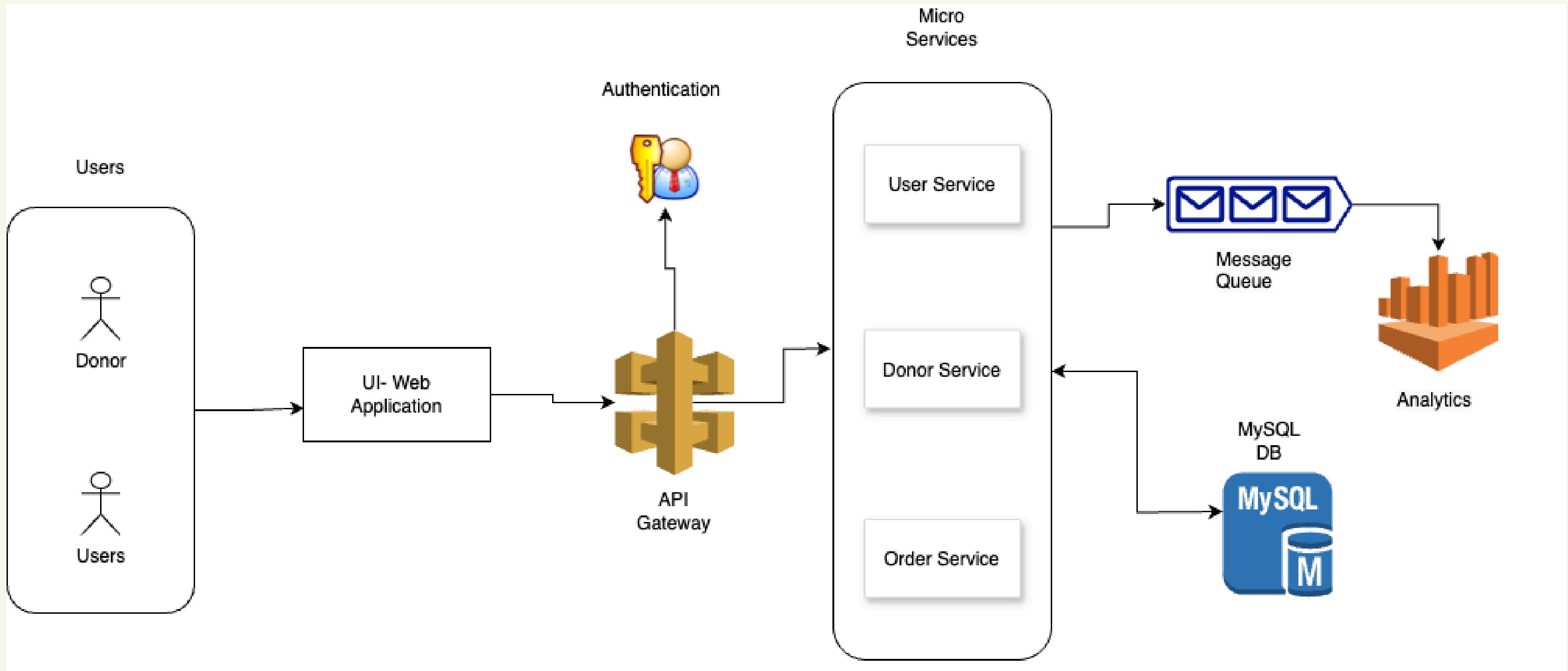
`/donor/getFoodItems`

To view the food entries previously added

ER Diagram



System Architecture



Demo

Application Testing

1. EndPoint
2. FrontEnd

[Test document link](#)

Future Scope

- **Enhanced Features:** Introducing new features such as push notifications, reviews, and interactive map integration.
- **AI Recommendations:** Leveraging data analytics & AI to gain insights into food surplus patterns, user behavior, and impact metrics.
- **Automation:** Automate testing using tools like Selenium. Orchestrate the data pipelines.

Challenges

- **Integration:** Integrating the components into a unified project proved difficult due to the numerous dependencies involved.
- **Configuration & Deployment:** Deployment in Kubernetes involved complex configuration for managing multiple components and access to third party applications.

Thank you!

Questions?

