CSE370 : Database Systems
Project Report
Project Title : Cafe Management System

Group No : 7, CSE370 Lab Section : 15, Summer 2025		
ID	**Name**	**Contribution**
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22201680	Md Jamshedul Alam Khan Hridoy	Frontend, Backend

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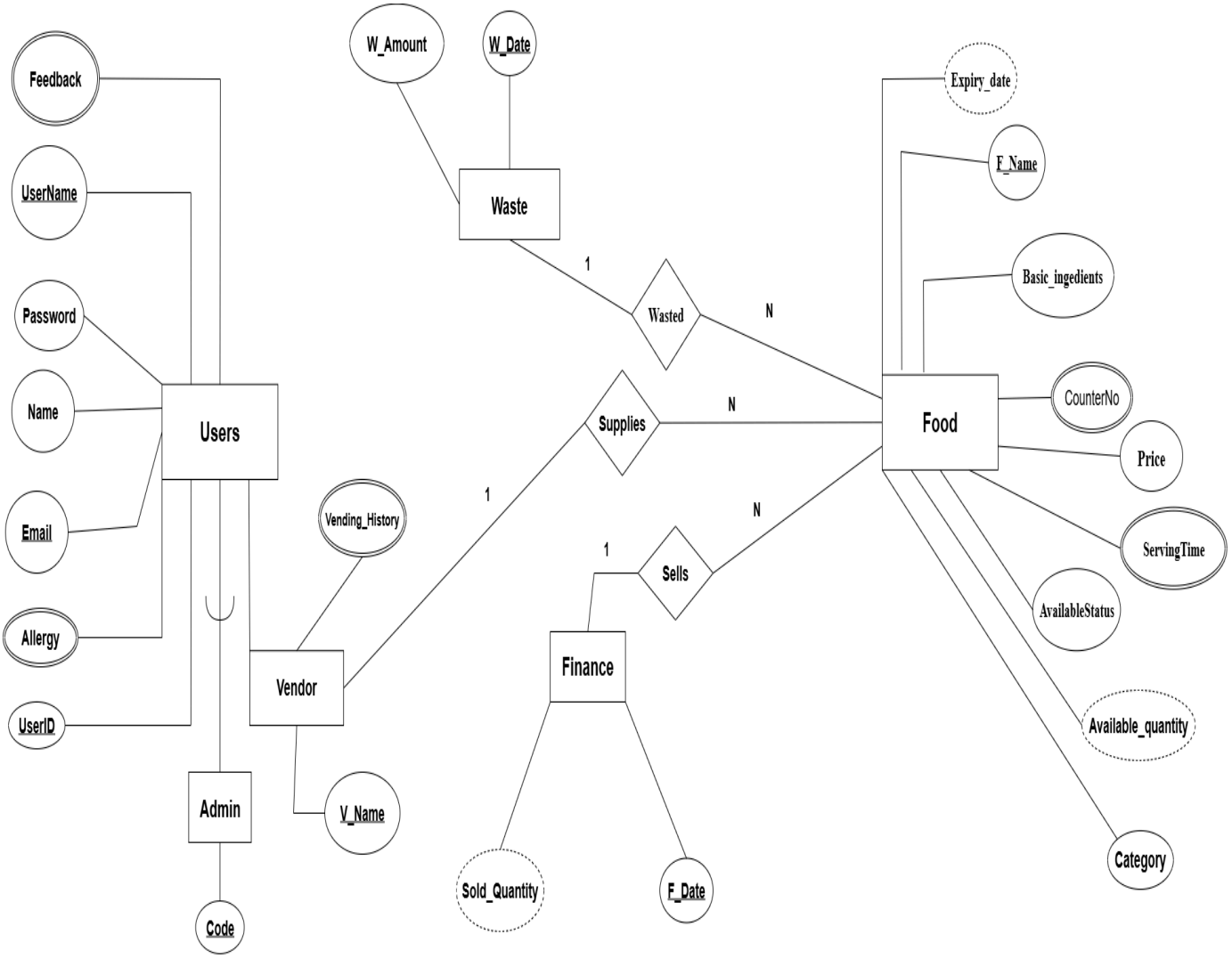
Introduction

Our project is called “BRACU Food Availability Status”. We tried to make a website which will help us know about the availability of a food item from the cafe of our university. We used HTML, CSS, JavaScript, PHP, MySQL. Basically, the main dashboard of our website will show the details of all the food items like serving time, basic ingredients, availability, available quantity, counter. A user with an allergy can easily avoid a food item that contains that ingredient. A vendor can see the supplied food items with quantity. A staff will update the quantity through add and sell buttons. A vendor can see a finance report about a food item with sold quantity. There’s also a waste report which is about the wastage amount of food each day done by the students. The report shows the barchart of the exact food wastage amount of the last 10 days. There’s a feedback submit form so that anyone can submit their suggestions, feedback and complaints through that. A person has to have a g-suite mail address in order to signup and can see the dashboard only after successful login/signin. There's a dark/light theme button to change the background and refresh button to update the food availability status of the present time. A user can see his/her details through clicking the my profile button.

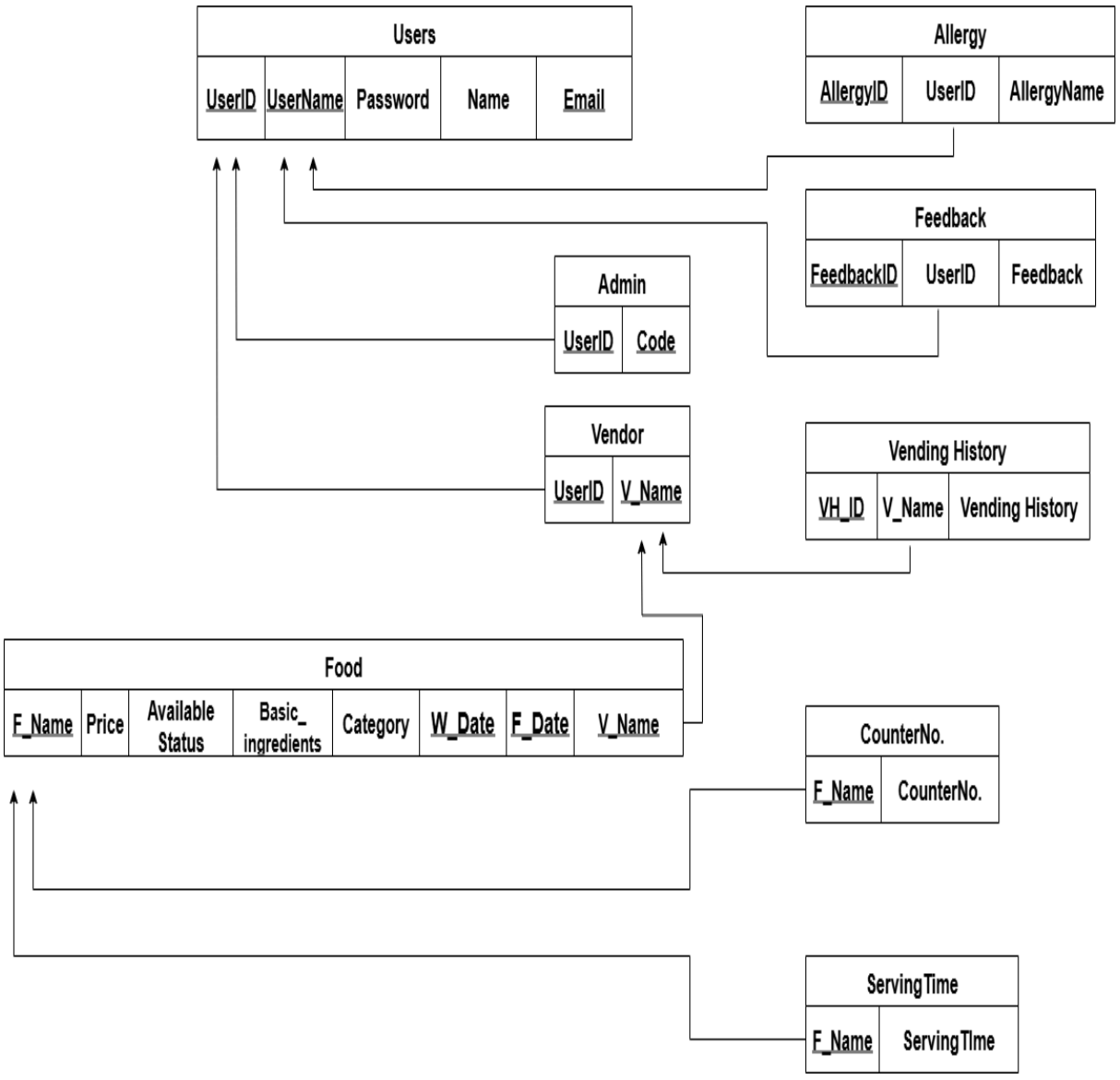
Project Features

ID, Name	Features [3 per member]	
23201390, Md. Minhazul Mowla	Ft 1	Live Food Availability
	Ft 2	Waste Report
	Ft 3	Food Sold History
22201680, Md Jamshedul Alam Khan Hridoy	Ft 1	Allergy Maintain
	Ft 2	Food Vending History
	Ft 3	Different User Category Maintain

ER/EER Diagram



Schema Diagram



Normalization

a. Explain if your converted Schema is in 1NF or not. If not, decompose it to 1NF.
b. Explain if your converted Schema is in 2NF or not. If not, decompose it to 2NF. Can there be any partial functional dependencies in your relational schema?
c. Explain if your converted Schema is in 3NF or not. If not, decompose it to 3NF. Can there be any transitive dependencies in your relational schema?

a

Yes, our converted schema is in 1NF. Because there's no multivalued attribute.

b

Yes, our converted schema is in 2NF. Because it is in 1NF and has no partial dependency.

No, there can't be any partial functional dependencies in our relational schema.

c

Yes, our converted schema is in 3NF. Because it is in 2NF and has no transitive dependency.

No, there can't be any transitive dependencies in our relational schema.

Frontend Development

Contribution of ID : 23201390, Name : Md. Minhazul Mowla

1. Food Table: Showing a table of food items with required details like - serving time, counter no, available quantity, availability status, basic ingredients.

2. Dark/Light Mode Button: Clicking the button changes the theme to either dark mode where background is darker and light mode for brighter background.

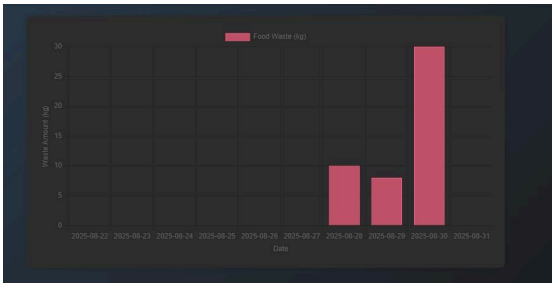
3. Refresh Button: clicking the button would update the food table with the updated information.

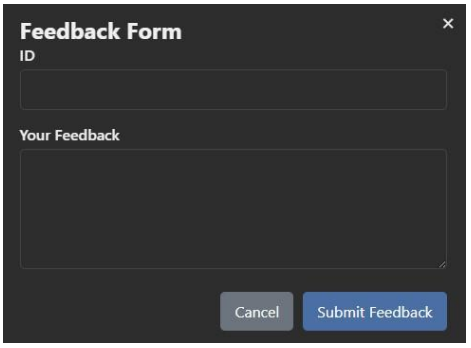
4. Waste Report: A barchart showing the food wastage amount of the last 10 days with dates.

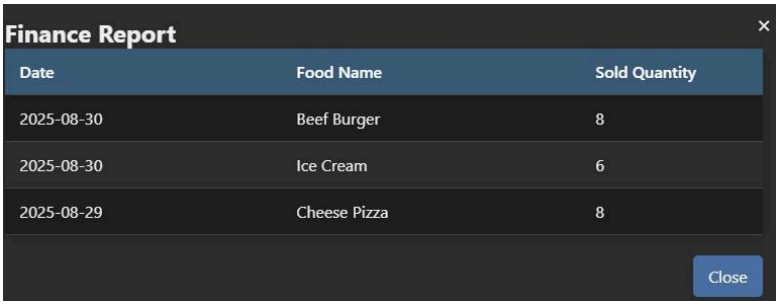
5. Feedback Button: Clicking the button would open a dialogue box where a user has to input his/her id and the feedback he/she wants to submit.

6. Finance Report Button: A vendor can see the finance report through his user profile.

Food Name	Ingredients	Category	Counter No	Price (BDT)	Serving Time	Availability Status	Available Quantity
Beef Burger	Beef Patty, Bun, Lettuce, Tomato, Cheese	Fast Food	1, 3	150.00	8:00 AM - 6:00 PM	Available	30
Cheese Pizza	Flour, Cheese, Tomato Sauce, Herbs	Fast Food	1, 3	160.00	8:00 AM - 6:00 PM	Available	24







Contribution of ID : 22201680, Name : Md Jamshedul Alam Khan Hridoy

1. Sign-in/Log-in: Sign in / log- in with username and password.

2. Sign-up: Create a new user profile with full name, username, password, allergies, user type.

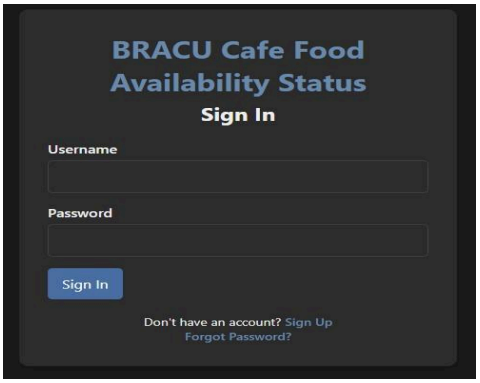
3. My Profile Button: Clicking it would open a dialogue box with a user's personal information like - Full Name, ID, Username, G-Suite mail, Allergies, User type.

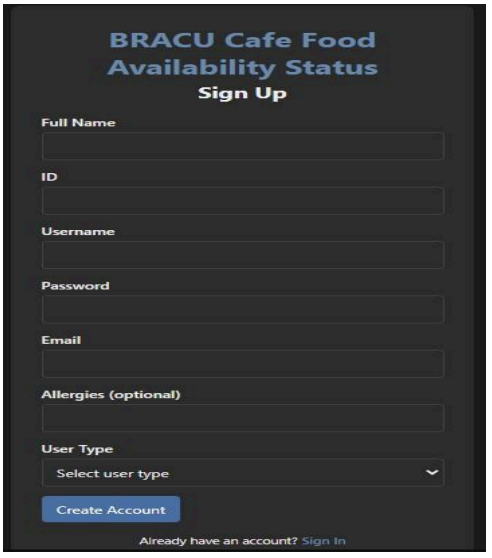
4. Search Option: A search option to find specific food items and a reset button to remove the specific food item from the search box.

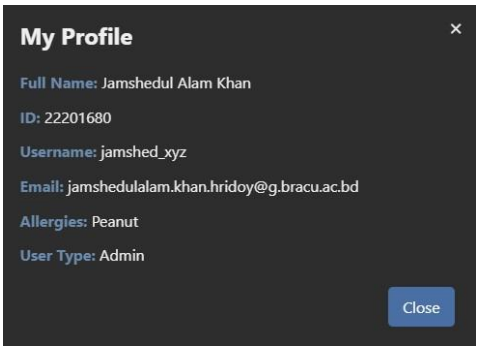
5. Signout: The signout button would log out a user from his/her profile.

6. Vending History Button: Shows the vending history of a vendor.

7. Clock: A digital clock in order to cross check with a food's serving time.







Backend Development

Contribution of ID : 23201390, Name : Md. Minhazul Mowla

1. Update Food Quantity: When a staff adds/sells a food item with a certain quantity, it will also update in the main database's food table. Based on the food quantity and serving time, the food availability status will update automatically.

2. Waste Report Update: Staff, Vendors can upload the amount of food wastage done by the students each day and it will be stored in the waste table with the present date.

3. Food Sell History: When staff use the sell button, the food item and the quantity of each item will be stored in the finance table.

4. Feedback History: When a user submits a feedback, it's stored in the database with their id.

Contribution of ID : 22201680, Name : Md Jamshedul Alam Khan Hridoy

1. User Info: Through signing up, a user information will be stored in the user table in the database.

2. User Sign in: Cross checking whether a user is ensuring the correct username and password to sign in.

3. Allergy: Separating users with allergies and also food containing those allergy ingredients. Keeping those food items at the bottom of the dashboard food table and with a light red color.

4. User category: There are 4 types of users - Admin, Student, Staff, Vendor. A student won't see the actions like sell, add of food items, finance reports, vending histories. A vendor won't be able to see the sell, add actions buttons but can see their vending histories, finance reports. A staff can't see the finance reports, vending histories but can see the add, sell action buttons and use them. Me and my groupmate, as admin, can see and do everything.

5. Vending History: When staffs add food items, it's vending. Whenever adding is used, the vending history table stores the food name with the quantity.

Source Code Repository

Google Drive:
https://drive.google.com/drive/folders/1HKyqbz0yf04zp3o63e-9HgP0viuKPZQR?usp=sharing

Github: https://github.com/DeadboyTALHA/CSE370-15-Project

Conclusion

We made the “BRACU Cafe Food Availability Status” in order to make sure everyone can see the updated quantity of a food item as almost everyone is always in a hurry for a class, quiz, lab. We hope that it would help students to save time without having to visit the cafe or visiting multiple counters to find a specific food item. It will also help a student to easily avoid the food items containing his/her allergies as basic ingredients are mentioned. It's also quite functionable for storing vending history, sold food quantity. We also focused on the waste report based on students who waste food. Everydays wastage of food amount barchart might make a lot of people avoid wasting their food and buying the required amount. Even though there are some flaws in our system and also some things could have been done better and more effectively, we focused on ensuring the main target which is showing the live food availability details.