report.pdf
Github Link: https://github.com/CSC309-A4/Assignment4

Intro
Our application is a “food sharing” application. It allows anyone to sign up as either a user or deliverer (or both, if you want). The idea is that users can place an order for food, and any deliverer on the system can view the order and accept that order.

As a motivating example, suppose UserA is hungry but they are lazy working on a CSC9001 project. UserA can post an order requesting SUSHI and a DIET PEPSI. A deliverer who is currently near a sushi restaurant may see this order and accept UserA’s order. UserA and the deliverer will both have contact information so they can reach other. They will also provide their current address / location so they can find each other and make the food delivery successfully. As we can see, UserA will no longer be famished, and the deliverer can make some extra cash.

Of course this system has some “real world flaws”, for example if nobody ever accepts UserA’s order, then he may go hungry forever. We don’t worry about these sorts of details for now.

a) Design of application
Our application has several components. There is the ability for people to sign up and login to the system. We differentiate between the 2 types of users, “Users” (people who order / request food) and “Deliverers” (people who accept orders and deliver food to users). When you sign up, you provide some basic information about yourself such as email address , phone number, etc.

After signing up successfully, you can now log in to the system using your name and password. As soon as you log in, you are directed to your profile page. Your profile page displays basic information about your account. It also allows you to interact with the system. If you are a user, you can make orders from your profile page. If you are a deliverer, you can accept orders from your profile page.

Deliverers have the option of searching for orders. For example, they can search for orders made from users who are located in the same city as them. This can be viewed in the profile page for deliverers.

When you log in, the server sends the client a session cookie, which can be viewed in your browser console by typing in: document.cookie
The cookie uniquely identifies you and the fact that you are currently logged in. When you hit the logout button on your profile page, this cookie is erased, indicating that you are logged out.

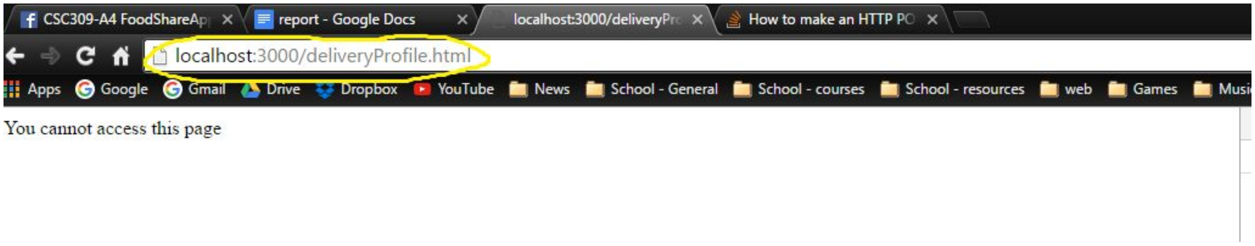
There is also a section where users can leave feedback for each other. Anyone can leave a comment and a numerical rating for any user or deliverer in the system. The feedback page also allows you to search for anyone in the system.

The application stores all the data concerning Users, Deliverers, Orders, in a database. Whenever we want to retrieve a specific piece of data we make a request to a server, which in turn makes a request to the database.

b) Security Vulnerabilities
An important security measure we have taken is to provide both client side as well as server side validation for the sign up forms. On the client side, we use HTML5 and pattern matching to inform the person if they are entering proper values for the form fields. On the server side, we use the **express-validator** middleware in order to ensure the form fields entered are valid.
The importance of this is that someone may attempt to sign up and provide bogus / nonsensical data into the sign-up form. They may also try to submit the form without using the page directly (eg. by turning javascript off). An example of this is included in test.js where we subvert the client-side validation and send a post request with

Another way we secured the site is to prevent users who are not logged in from performing certain tasks. The way we achieve this is by using session cookies. If a user is logged in, they will have a cookie set. For example if you are not logged in and try to access "localhost:3000/deliveryProfile.html" you will get a message saying that you can't view the page. If you are logged in as a deliverer, you will see the html page.

Below: what happens if you are not logged in



You cannot access this page

Encryption of credit card info:
(under construction?)

c) Performance
Nothing yet

d) Youtube Link
Not done yet

e) Other details:

Known Issues:
- If you logout and then press the back button, you get back to your profile page even though you aren't supposed to be able to after you log out
- feedback.html is supposed to be restricted if you aren't logged in, but it is currently not

Missing Features
The following are things we did not implement / have time for:
- Orders. Did not fully implement the ability for deliverers to accept order