

CMPE 273: Enterprise Distributed Systems

Lab 3 Assignment: Using GraphQL

Due: December 6th, 2020, 2:00 PM

This lab covers designing and implementing a GraphQL application.

This lab is graded based on 25 points and is an individual effort (no teamwork allowed)

Prerequisite

- You should have prior knowledge of JavaScript, React, Redux, MongoDB, Passport, JWT token, AWS EC2
- You must have carefully read concepts of Query, Mutations and React Apollo client
- You should be able to run GraphQL sample example demonstrated in the class.

Grading

Yelp Application - 20 marks

Questions – 5 marks

Total – 25 marks

Note: Late assignments will be accepted but will be subject to a penalty of -5 points per day late.

Submissions received at or before the class on the due date can receive maximum.

Yelp

You need to develop “Prototype of Yelp application”. This prototype will be a web application using React, Node and GraphQL. Refer Yelp website and see how it functions.

The application should have the following persona:

1. Customer
2. Restaurant

You need to implement the following features in your application for the roles given above.

1. Customer Signup (name, email id, password)
2. Restaurant Signup (restaurant name, email id, password, location)
3. Sign in
4. Sign out

A Restaurant should be able to do the following functionalities:

Restaurant page (Dashboard – Landing page):

1. View restaurant profile – having all basic information about restaurant (name, location, description, contact information, timings)
2. Update restaurant profile (name, location, description, contact information, timings)
3. Update Contact information
4. Add/Edit Dishes in menu (with Dish name, Main Ingredients, Dish Price, description, dish category – Appetizer, Salads, Main Course , Desserts, Beverages)
5. View list of dishes added by them.
6. View Reviews given by customers

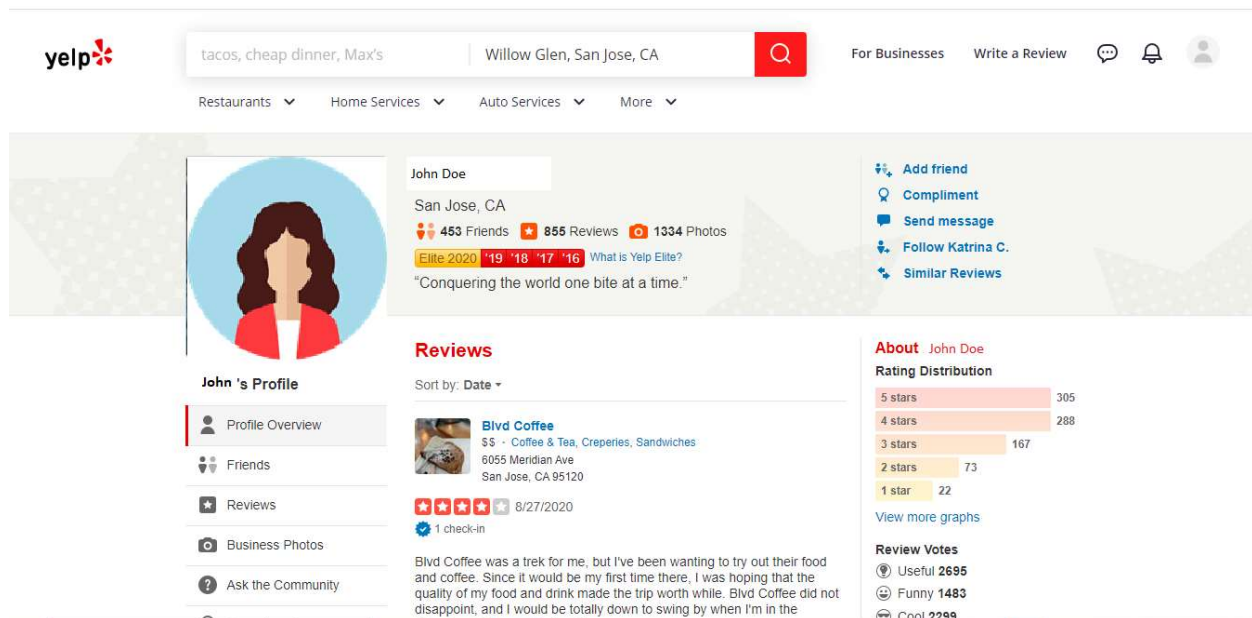
Orders page:

1. View list of orders by customers
2. Click and view profile page of each customer
3. Update the delivery status of each order – Order Received, Preparing,
(If Delivery option selected) On the way, Delivered
(If Pickup option selected) Pick up Ready, Picked up
4. There should be 3 filters on orders(New Order, Delivered Order, Cancelled Order)

A **Customer** should be able to do the following functionalities:

Profile Page:

1. Display complete profile of a customer (basic details, favorites, about)
2. Update about section(Yelping since, Things I love, Find Me In, My Blog or Website, etc.)
3. Update basic details (name, date of birth, city, state, country, nick name) and headline
4. Update Contact Information (email id, phone number)



Restaurant Search tab (Dashboard – Landing page)

1. Search for Restaurant (using dish names, cuisines, location, mode of delivery)
2. Filter restaurant search results based on food delivery method (Curbside Pickup, Dine In, Yelp Delivery) and location (neighborhoods)
3. Click and view a restaurant page

[For Businesses](#)
[Write a Review](#)

[Restaurants](#)
[Home Services](#)
[Auto Services](#)
[More](#)

Filters

\$

\$\$

\$\$\$

\$\$\$\$

Suggested

☐ Curbside Pickup
 ☐ Open Now 11:39 PM
 ☐ Yelp Delivery

Features

☐ Curbside Pickup
 ☐ Accepting Donations
 ☐ Yelp Delivery
 ☐ Yelp Takeout

[See all](#)

San Jose > Willow Glen > Restaurants
 The Best 10 Restaurants near Willow Glen, San Jose, CA

Sort: Recommended

Delivery
Order in

Takeout
Grab and go

Sponsored Results

Sauced BBQ & Spirits - San Jose

★ ★ ★ ★

214

\$\$ • Barbeque, American (Traditional), Burgers

+1-408-564-8048
3055 Olin Ave
West San Jose

[For Businesses](#)
[Write a Review](#)

☐ Curbside Pickup
 ☐ Accepting Donations
 ☐ Yelp Delivery
 ☐ Yelp Takeout

[See all](#)

Neighborhoods

☐ Willow Glen
 ☐ Evergreen
 ☐ Alum Rock/East Foothills
 ☐ West San Jose

[See all](#)

Distance

☒ Bird's-eye View
 ☐ Driving (5 mi.)
 ☐ Biking (2 mi.)
 ☐ Walking (1 mi.)
 ☐ Within 4 blocks

1. The Table

★ ★ ★ ★

2891

\$\$ • American (New), Breakfast & Brunch, Salad

(408) 638-7911
1110 Willow St
Willow Glen

☒ Delivery
 ☒ Takeout
 ☒ Outdoor Seating

"I finally got the gut to do my round dining at restaurants in the South Bay this past eel on... Since hubby is started traveling g for work again, no longer WFH and I started to work on site too in San Jose... More chance for me to dine out. Safety is our concern, of course. But also having my..." [more](#)

2. Vin Santo Ristorante

★ ★ ★ ★

599

\$\$ • Italian

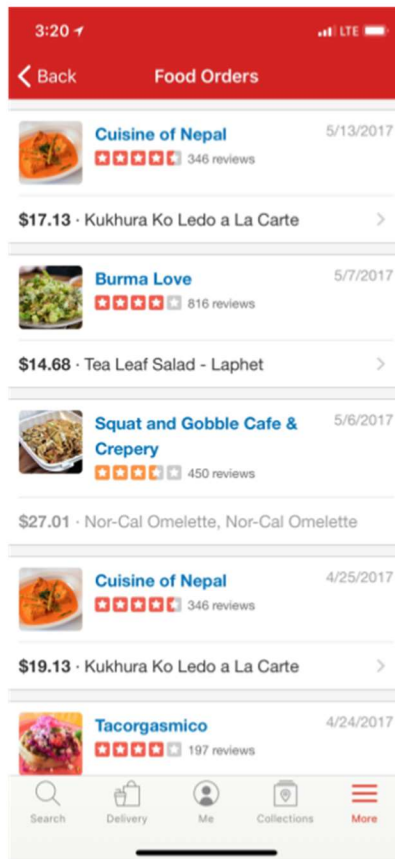
(408) 920-2508
1346 Lincoln Ave
Willow Glen

☒ Delivery
 ☒ Takeout
 ☒ Outdoor Seating

"Wow. just wow. This place is so good. I was extremely pleased with the quality of the food and even more impressed with the

Orders Tab

- View list of all the orders placed (along with order Date-Time, order status)
- Filter the order based on the order status – Order Received, Preparing, (If Delivery option selected) On the way, Delivered (If Pickup option selected) Pick up Ready, Picked up
- Sort the results on the basis of order date-time both ascending and descending.



Restaurant Tab

1. View Restaurant Page
2. Add insightful reviews(date, ratings, comments)
3. Order food from the page, select delivery method.



Sauced BBQ & Spirits – San Jose

Claimed



214 reviews

Details

\$\$ • Barbeque, Sports Bars, Burgers [Edit](#)

Closed 11:00 AM - 10:00 PM [Hours updated 1 month ago](#)

[Write a Review](#)

[Add Photo](#)

[Share](#)

[Save](#)

[Follow](#)



Offering Takeout or Delivery

[Order Now](#)



saucedbbqandspirits.com



(408) 564-8048



[Get Directions](#)

COVID-19 Updates



San Jose, CA

453 friends

855 reviews

1334 photos

Elite '2020

★★★★★ 8/16/2020

While walking around Santana Row recently, I realized that Roots and Rye was replaced with Sauced BBQ and Spirits. I found that Sauced is actually a chain BBQ restaurant albeit a high end one. The food is considerably expensive, but hey, it makes for a nice fit in Santana Row. Sauced piqued my interest enough to try out their food later that same day. They were offering outdoor seating in the midst of the Covid environment, but given this week's heat wave I figured I'd DoorDash instead. The food was so good that even DoorDash did it justice.

My boyfriend and I shared a 2 meats plate consisting of ribs, brisket and 2 sides. We chose mac 'n' cheese and the jalapeno coleslaw with the combo. We also threw on an extra side to our order of some waffle fries with rub (extra \$1 for seasoning). Unfortunately the 1/2 chicken was not part of the DoorDash menu otherwise we would've gotten that as a 3rd meat.

I enjoyed the sides a lot. The waffle fries with rub were comparable to Wingstop's crack fries, so naturally I loved them. Do I even dare say I liked Sauced's seasoning better? Bold statement, I know. The jalapeno coleslaw was unique, and I liked how light and refreshing it was. The cabbage was crisp and crunchy, and the bursts of spiciness from the thinly sliced jalapeños were the best parts. Sauced has a solid mac 'n' cheese, although I did think it was the least impressive of the 3.

Texas-style brisket is my fav. BBQ. Sauced and I were off to a great start as I picked the fattiest piece from the box. The brisket had a beautiful pink smoke ring, and I could taste the smokiness of the bark. The meat was juicy and tender. It was a hit in my book.

- Every service should have proper exception handling and every input field should have proper validation.
- Use of Passport.js, Kafka and Redux is optional.
- If you are using Passport.js for authentication, then use REST route for login which will be a nonprotected route. Obtain token from the login and use this token to access in your GraphQL route for mutation and query calls.
- Password values should be encrypted.
- ESLint should be used in your code following Airbnb style guide.
- The application should be deployed on cloud (E.g. Heroku, AWS EC2)
- A simple, attractive and responsive client attracts good marks.

Questions

1. How will you enable multi-part data in GraphQL?
2. Discuss the architecture for using multi-part data in GraphQL without using any open source library from Git.
3. State any open source library for enabling multi-part data transfer using GraphQL with sample code. Argue why do you think that this particular library is a good fit?

Git Repository

- In your Git repository, create two sub-folders, one for Frontend and one for Backend. Place all your source code in respective Folders.
- Add a proper description for every commit describing what code changes are added.
- Regular commits to your repository are mandatory. (Penalty of 3 marks if missed).
- Do not submit dependencies or supporting libraries (e.g. node_modules) (including them causes deduction of 2 marks).
- All the dependencies should be included in package.json file.
- Readme file of your repository should contain the steps to run the application.

Project Report

- Introduction: State your goals and purpose of the system
- System Design: Describe your chosen system design
- Results: Screen captures of testing results and important screens of the application.
- Performance: What was performance? Analyze results and explain why you are getting those results.
- Git Commit history – screen capture
- Answers to the questions.

Submission

Please upload your report (John_Lab3_Report.doc) on Canvas before deadline. (Number of pages in Report should be below 30)