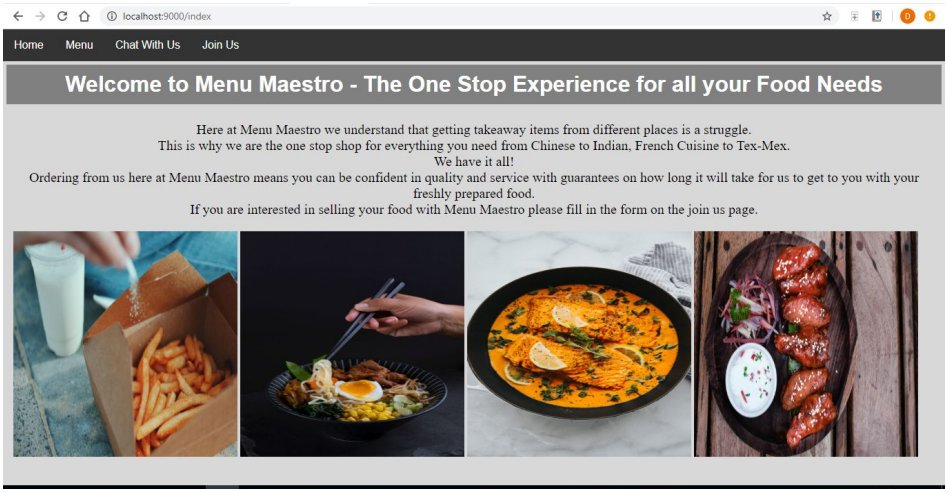
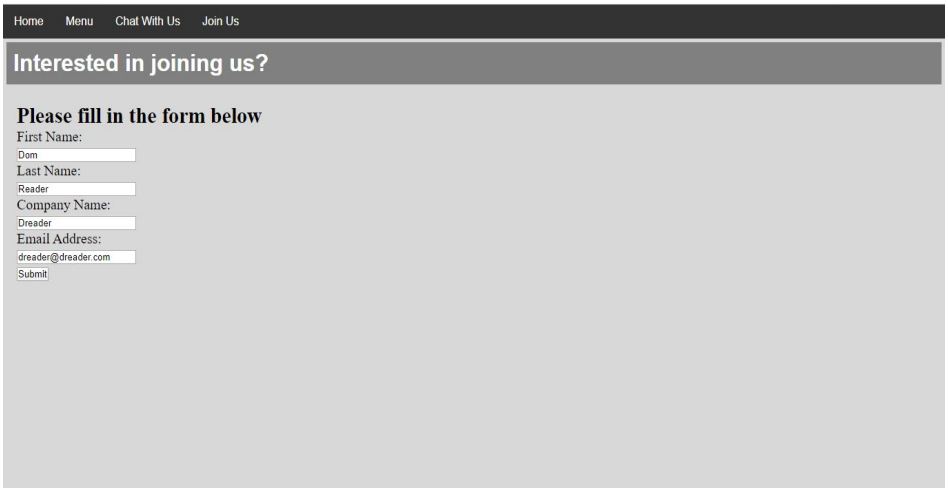
Menu Maestro - SOFT 355 Report

Functionality



My project allows the user to browse a food ordering website which at its current stage of development would be better suited for businesses looking at signing up to use the service. When loading into the site the page to the right is what you are greeted with, from there the user would navigate the site by clicking the buttons on the header. Menu currently shows a couple restaurants signed up. Chat with us launches a chat window where communication can be had. The Join us page allows the user to fill in a form and submit it which will be saved to a database for the team to get back to the customer later on.

The technologies used on this project involved WebSockets for the chat system; this was based off of the Socket IO example due to difficulty setting up the technology [1]. Node JS was used in the project to be able to write the project and then Express was used so that requests could be handled. This is shown in the loading of pages, specifying ports as well as creating static elements so they are accessible across the application. In addition to this Mongoose was used for MongoDB to create a database to store data given in the form, there is currently one database called applications however when trying to implement another to store messages there were issues so one was kept for the purpose.



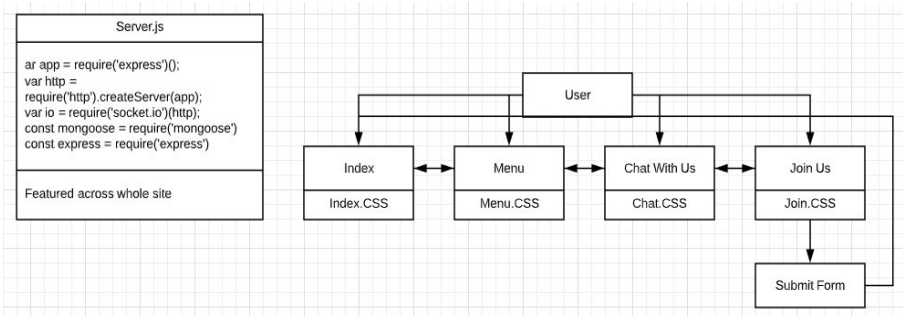
To use, the user would fill in the form then when submit is pressed the data is saved into applications which can be viewed by using the mongo terminal; this is all handled in the server.js script and the form is located in the join.html file. The website is a good base for setting up a food ordering business where new businesses can join up and then in future customers can order.

Requirements

In my project proposal I stated that the website would be best for customers and for businesses however due to issues in development this was changed to be tailored more to businesses but still giving an idea of what the site would work like. Features included for the business owner to use include a form to sign up to add their business to Menu Maestro which then upon approval they could be added to the Menu page. There is also a chat page which allows for multiple user communication; however this needs further attention as there are currently no usernames which can make things confusing if many users, a further improvement would be adding these chats to a database for later display if need to be looked at. The website is easy to navigate so it does look user friendly as well as perform that way too.

Design

The application is structured between client and server where the client navigates the site and the server will handle the requests needed however this does turn to peer to peer when viewing the chat as it allows communication between people viewing the chat page at the same time. However upon leaving chats are lost.
The design of the application is shown partly in the UML diagram and shows the link between the pages and how they go together. Next to this is the server.js file, this file is fundamental in what happens on the server as it sets up the node server including setting the correct port. In addition to this the server file also contains the express code allowing for static elements as well as making sure everything is routed correctly. Next the server file handles the websockets by setting them up as well as logging connections and disconnections; this as previously mentioned was based off of Socket IO however there are added features such as showing the users when someone connects or disconnects as well as being styled correctly to fit in with the site. Finally the server also contains the operational code for MongoDB to allow everything to be clear and in one location. From all of these being located in one central file it allowed getting everything set up and navigating to be easy and clear. All of the CSS files are called within the HTML files but kept externally, this is the same with the images used.



Testing

Due to issues with development on the project there was not a large amount of testing conducted and this was mainly done in the form of usability testing. Usability testing included gathering opinions on what looked good, how it worked, and whether it would be intuitive for the user.
In future projects I would include Mocha and Chai and build a project around Test Driven Development due to it avoiding some of the later headaches when issues occur.

DevOps

In regards to DevOps processes I tried to be agile in how I worked using GitHub to be able to work actively and have sprints. Menu Maestro undertook a major change in audience late in the project so the old version was shelved as starting anew proved to be easier. GitHub was used due to being able to have an active change log which at one point was needed when databases proved to have issues saving items to the wrong locations; this was when I reverted to an old commit which proved to solve the issue. This was the main form of DevOps I used and in future using a continuous integration pipeline would be recommended to further this.

Personal Reflection

Across the project there have been many ups and downs both in regards to development with knowledge barriers as well as personal issues. However at the end of the project now I believe I have achieved a working prototype for what could progress to be an interesting project. The original idea did prove to be out of scope but I am pleased with how I managed to get the databases implemented as well as WebSockets due to my limited knowledge of web dev before this module. Javascript proved to be an issue for me personally due to formatting so in future projects I would focus on making more interactive websites which would then be more interesting for someone to use. In addition to this in future projects I would make sure more testing was conducted with Mocha and Chai as I did not use either of these although some simple usability was conducted.

References

[1] Socket IO Tutorial - https://socket.io/get-started/chat/
[2] Jennifer Bland Saving to MongoDB Tutorial - https://www.jenniferbland.com/saving-data-to-mongodb-database-from-node-js-application-tutorial/
[3] MongoDB documentation - https://docs.mongodb.com/manual/reference/mongo-shell/
[4] Burger Image - Sina Piryae, *double-patty cheeseburger*, https://unsplash.com/photos/6XmQV6GccYU
[5] Fries Image - Mehrshad Rajabi , *selective vision of fresh fries,* https://unsplash.com/photos/NM92w8oiKn0
[6] Ramen Image - Miguel Maldonado, *Ramen Dish Photo,* https://unsplash.com/photos/qom5MPOER-I
[7] Salmon Image - khloe arledge, *Bowl Of Meat With Sauce,* https://unsplash.com/photos/ND3edEmzcdQ
[8] Chicken Wings - Atharva Tulsi, *Savoury Chicken On Plate,* https://unsplash.com/photos/Yh9Ut4d3K0A