

EE / CprE / SE 492 - Bi Weekly Report 04

Mar. 1 - Mar. 15, 2021

Group 34

Route-Constrained Family Shopping Optimization

Client: Iowa State University

Faculty Advisor: Goce Trajcevski

Project Contact: Ashfaq Khokhar

Team Members:

Colin Thurston - *Team Leader*

Christian Baer - *Backend Architect*

Tavion Yrjo - *Backend Developer*

Colin Willenborg - *Mobile Developer*

Elizabeth Strzelczyk - *Web Developer*

Erich Brandt - *Web Developer*

Weekly Summary:

The goal of this period was to connect the frontend and backend. This would be using the web API. Also to get the Map to work on the Android app. Finish off the database and the web scraper while starting to dig in deep to the A*.

Past Week accomplishments:

We were able to connect both the web and Android application to the backend with the API. Along with this we were able to get a registration page done on the web application side. The web application also has a design for a list of shopping lists, as well as a page to showcase the items in that list with adding/deleting functionality (these features are not yet connected to the backend). There is also a more flushed out database with better tables and a finished web scraper that is usable for what we need. The map is able to be switched to in the Android app.

Users

Show/Hide | List Operations | Expand Operations

GET	/GetUsers
GET	/GetUserIdFromLogin
GET	/UsernameUniqueCheck
GET	/GetUserById
POST	/RegisterUser

User Controller from Swagger Web Application

Register

First Name: Last Name:

Address:

City: State:

Email address:

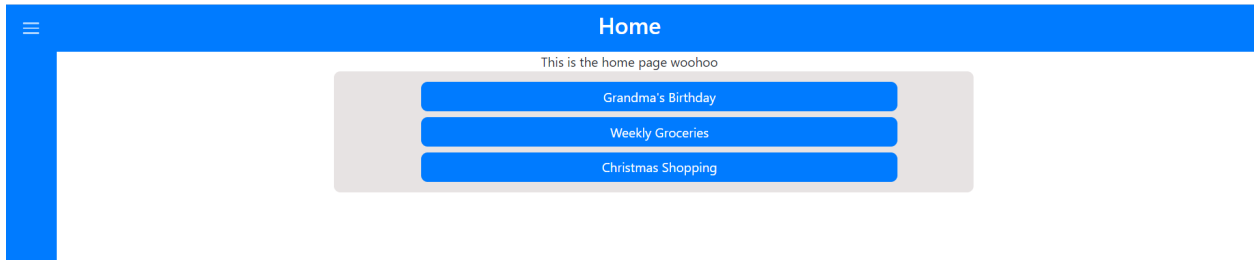
We'll never share your email with anyone.

Username:

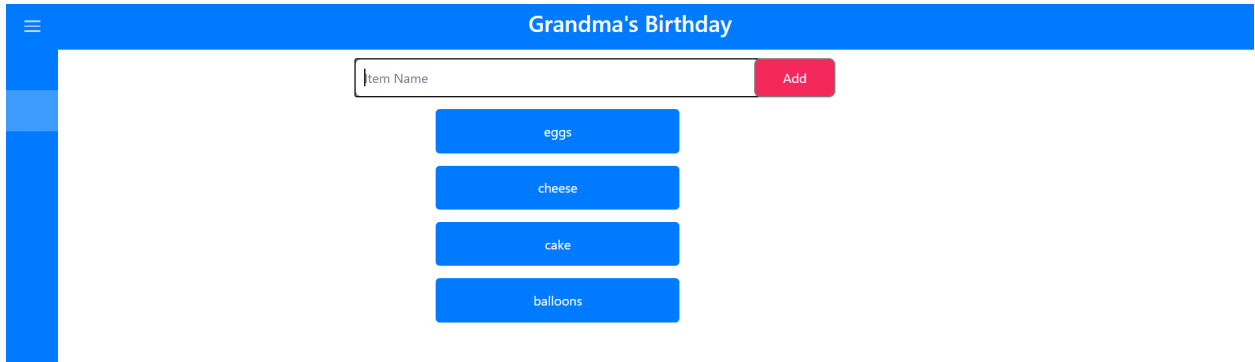
Password: Confirm Password:

Already have an account? [Login here](#)

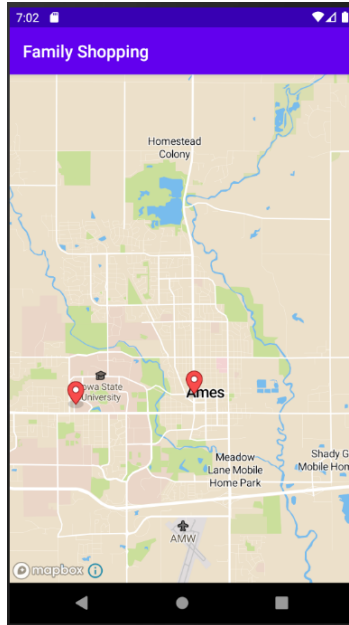
Updated the register page to connect to the database. Also reformatted the register page to look neater.



Updated the home page to display all of the user's shopping lists.



Added a page to display the items corresponding to each user's list. Users can click on an item to remove them from the list.



The map view from the family shopping app.

Pending Issues:

- **N/A (Built Different)**

Individual Contributions:

Name	Individual Contribution	Hours this week	Total Hours
Colin Thurston	Web Scraper completion with a large enough net you get what we want. Worked on the A* algorithm and all the functionality that is needed with it.	8	27
Christian Baer	Worked on Connection from API to DB. Created API methods for User Controller.	8	24
Tavion Yrjo	Implemented map. Working on routing UI for MapBox.	4	18
Colin Willenborg	Made minor UI changes and connected the android app to our backend. Helped Tavion fix the map page in our mobile app.	10	31
Elizabeth Strzelczyk	Connected the login and registration page to the backend, created a display of shopping lists on the home page	8	22
Erich Brandt	Created the list page to display the items in a user's specific list. Users can click on an item in the list to remove them from the list. Added a search bar to the list page to add items to the list.	8	23

Plans for upcoming week:

- Web API- Christian
 - Complete Implementation of Entity Framework.
 - Create Controllers for the tables in the db.
- Mobile app - Colin Willenborg
 - Finish up the api service for the current get/post requests implemented and add on additional functionality as it is added to the backend.
 - I have some ideas for how to make the UI and UX better so I want to work on those which include:
 - Better labeling
 - More intuitive list creation and editing
 - Other minor improvements
 - Start going through the code and cleaning up the bad coding practices currently present in my code.
- Mapbox - Tavion
 - Adding implementation of routing based on user location and destinations.
 - Work on map routing UI and map styles.
- Algorithms - Colin Thurston
 - Getting the A* to work with a graph of the store locations
 - Getting the Web Scraper to be able to be called from both the Android and web applications
- Web app - Elizabeth/Erich
 - Continue connections to the backend (show specific shopping lists for specific users, add/deleting items to a shopping list, etc.)
 - Adding a “start” option on a list that will connect to MapBox and display a map
 - Discuss options for adding items to a list through web scraper/database

Summary of bi-weekly advisor meetings:

In our meeting we discussed the use of the Web Scraper with the Database. The database has been modified to better handle the data coming back from the Web Scraper. We also showed off new iterations of our UI from the mobile application. Finally, we discussed modifications that needed to be made to some of the database tables to better handle multiple shopping lists for a single user.