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GUI II

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Hop2It Final Report

**Project Overview**

The name of the project/website was Hop2It. The goal for the project is to allow users to create a list of items they need while along their journey. Someone else can also pick up the items for them as well. This was the goal of the project because many people forget items while shopping or can’t get it themselves. For example, if you are hosting a party and you realize that you forget the chips and salsa or if you are sick and can’t leave the house, Hop2It helps resolve this issue by letting you create a journey and having a friend pick it up for you. Hop2It is unique in this problem because there aren’t many websites, if any, that let you request groceries from your friends using an interactive map and to-do list. The website has many purposes to it. Bringing applications into one place and organizing a trip quickly are a few. Based on how many people in America travel around whether its for work, shopping, or vacations, the project will be very convenient to a wide variety of users regardless of their purpose of usage. Going back to how the website brings in multiple applications, the project brings in features of maps, DoorDash, and similar features to online shopping carts. Hop2It is a special project that brings in multiple applications so that make uses can pick up items on their journey while having fun.

**Related Work**

There are no websites that work and bring multiple application together like Hop2It. But there are many websites that have similar features or does some parts of it. We used Google Maps API so our navigation feature and how the direction shows up on the map is the same as Google Maps.

Food delivery apps like DoorDash, Uber Eats, and more are also similar to Hop2It’s feature of “ordering food”. You can choose the location and select the items you want. The main difference is that these other websites allow you to pay for the food on the sites. For Hop2It, you cannot pay for the items you want, you will need to pay for it at the actual location.

We took these two styles of sites for our inspirations to make Hop2It. Rather than using different apps to buy/pick up food and then another to get to your destination, better to combine them with a few twists and additions.

We used many different types of resources that helped us out in creating our project. Since there is five of us with varying experience level and what each have used before, we decided to reach a middle ground of what each team member was comfortable with and a couple of new resources that none of us has used before. We used Discord, Figma, Visual Studio Code, Google Applications, and GitHub.

Our main form of communication was Discord. All of us have Discord and are familiar with it. We used discord to send messages about any question about the project, letting each other know when we push code on GitHub. We also posted links to any information or documents/presentation slides in the server. Our weekly team meetings were also held on Discord. We were able to do everything that we needed to do so on Discord without any problem.

We used Figma to create our prototype. Figma is a front end prototyping application that lets users “create” a website. This was the first time that we had used Figma and it was really fun to use. Using Figma made it much easier for us to imagine our project and how we wanted it to look and work. We had split up which parts of the websites we would each prototype. Our final project stayed on course to what we had on Figma for the most part.

We all used Visual Studio Code for our code editor and used GitHub to push all the code into one place. We all had experience with this plus it was also one of the easier and better code editor for website creating. We didn’t have much experience with GitHub on how multiple people push code without it messing up any previous code. We learned how to connect Visual Studio Code to the GitHub repository and learned how to commit out changes, accept/pull request. This new experience was very helpful for me because in the work force because I would be working with a team and most company’s use GitHub to collaborate on projects. For us, everything went smoothly on pushing our code, there were a few times where we can into problems, but they were just minor bugs. We also hosted our page on GitHub Pages as it was the easiest for us to while using GitHub to push the code. This new experience with Visual Studio Code and GitHub it something I hope to continue building on.

For our documentations and presentations, we used Google Applications like Slides and Docs. We used this because everyone would be able to edit it live without having to save and share every time if we were using Microsoft applications.

These were the major resources that we used to help with and create our project. I’m sure there are other resources that we could, but these were the ones that we found the more helpful and easily accessible for us.

**System Specification**

The main feature of the project is setting your start and end points, with stops in between and then being able to create a list of items you need from those stops. The project had many other different features and not just the navigation and list.

On the welcoming page (before signing in) when you first open the site, you will be introduced to a rough sample of how the map will look like and other quick information on persuading you to use the site. The bottom of the site, there is information on what each tab on the navbar does. Speaking of the navbar, it contains the logo which brings you to this page when not logged in. The navbar also contains the tab and the sign in button on the top right. The first tab, Start Journey, takes you to a blank page. Originally, it was supposed to show a sample of the main feature working.

The How It Works tab explains how the feature works. This addition is very nice and user friendly because explains to users how to use the main feature. This is helpful so people are not lost when first using the website. The Learn More tab gives a quick introduction to the team members that worked on the project.

Lastly on the welcoming page is the sign in button. After clicking on the button, it will take you to the sign in page. There is only one option to sign in with and that is Google. We had a couple other options like Facebook and GitHub but they unfortunately broke recently.

The welcoming page is slightly different than what we had originally designed. The content is different as we went more in detail for the How it Works tab and Learn More. The sign in feature is completely different, during design period, we had though of asking users to put in name, email, and password. But we realized that people would probably forget the credentials and could get their credentials stolen so we decided to switch to Google.

After signing in, you are on the main page. At the top, the navbar contains different feature than on the welcoming page. The logo it still there but it keeps you on the main page rather than taking you back to the welcoming page. Next to the logo is a search bar that would’ve let you look up other accounts to request friend requests. Unfortunately, we were not able to finish this feature. Next to the search bar, you will see your profile picture from the Google account you signed in with.

After that, you will see three icons that each have their own feature. The first is the notification icon, it would’ve given you notifications when someone accepted you friend request, finished your journey, and other things as well. Unfortunately, we had problems with firebase so we couldn’t accomplish this either.

Next to the notification icon is the messaging icon. Just like in the notification icon, we got problem with firebase so we couldn’t get this to work either. But essentially, this icon would let you send messages to your friends. We also decided to scrap this idea because we realized that most people would be using out site on a phone while driving. So messaging while driving wouldn’t be the best idea.

The third icon gives you the option to sign out. Once you click the button, it will take you back to the welcoming page.

Below the navbar is the main feature. It takes up most of the page so its easier to use and see. Left of the map is where the user puts in the origin and end points. After you put in your points, you will be asked to put in the address of a stop. After that, click on the stop and input the item and amount you need. Do this for each item you need. We were not able to implement the delete item feature. Once you have completed the journey, click the “End Journey”, the feature will reset, and you can start over again.

This main page has been completed changed from what we had designed with the prototype. Originally, we had planned to display online friends on the left side and pop up messages on the right side. The top middle of the screen is the main feature but a much smaller scale than our final product and it is much more cluttered. Below that we planned to show updates and be able to view other friend’s journeys. On our final product, we decided to completely change it so it is has a much more cleaner look and more user friendly.

**Project Design**

For the entire project, we used HTML, CSS, Bootstrap, and JavaScript. We did think of using React at some point but decided to not go forward with that since we all would’ve had to learn, and we could possibly run into the issue of not being able to complete the project.

On the welcoming page, the buttons on the bottom and the tab on the navbar lead to their own individual pages. Pretty much everything on the welcoming page is simple other than the sign in page. The content of each navbar link was also kept simple and easy. The How It Works tab was designed in way to give users a quick understanding of the project though I think we should’ve maybe used more paraphrasing and bullet points for it.

The Plan It Out was designed simply as well so users know how the feature will look and how to operate. It also has a small implementation of how to add items though we designed this differently in the final product.

The Learn More tab contains information about the members who worked on the project. It was designed in a way for users to clearly read about us and know what each person worked on. But because of time, we weren’t able to explain what we each worked on.

We used a Google sign in API to make it easier for users to log in. The API will authenticate that you have a Google account if not you will asked to create an account. We decided to design the sign in with the API because it would be more safe credential wise.

As I mentioned many times earlier, the design for the main page has completely been changed from the start. On the navbar, we have a search to look up accounts but firebase wasn’t cooperating so had to botch that idea.

The design on the content inside each icon has also been changed drastically. Both notification and messaging icon have much more simple styling than before. Decided to display the information as simple as possible rather than adding in extra features.

The main feature is designed in a way to let users use is easily. The map takes up majority of the page rather than only a square on top. This way, the users can see the navigation more easily. The left side contains the input boxes for origin/end, stop, and items. Just like the map it is sized bigger for the users to use. Even the button to add stops and input boxes are designed big.

**Team Work**

At the start of the project, we all were assigned what each member was going to work on. We split what each member would work from the proposal all the way to the final project. We each did our own slide depending on what we worked on for that assignment.

For the proposal I worked on the motivation section of the project. For the Figma prototyping, I was I charge of the welcoming page. I designed the navbar, the links in the bar, and worked on the content inside each. I also worked on the sign-in/create account pop up. For the actual coding, I worked on the layout of the main page, essentially mostly everything other than map implementation on the page. I worked on logo, search function, profile button, notification, message, and logout function. The messages on the side, displaying friends online, and other journeys was also my work, but we decided to remove all that.

Kathy was out team leader. She set on Trello, Google Drive, and team meetings. On the proposal she worked on the timeline and delegating tasks portion. For the Figma prototyping, she worked on the main feed functionality. She also created the UI for the Figma prototype. Such as, adding stops, closing drop downs, and inviting other people to the journey. For the final project, she worked on the welcome page and all the content of the navbar links. She also worked on editing the prototype video.

Raj worked on writing the significance section of the proposal. For Figma, he worked on designing the part where to search up existing accounts to request a friend request. On the final project, he worked on the map implementation. He worked on making the Google Map API work, including directions, adding stops, and lists.

Ssuna worked on related work and background section of the proposal. For Figma, he worked on designing the main feed page. That includes the navbar and its content, notification/messaging box, online friends, and other journeys. On the final project, he worked on with Tynan on the database access. Ssuna was in charge of using the credential to log in and brining the user to the main page.

Tynan worked on adding resources, related work/background, and rewrote the abstract on the proposal. For Figma, he worked on creating the notification when sending invited to join journey. On the final project, we worked with Ssuna on implementing the database. He was in charge of keeping created accounts in the database so you could send notification and search profiles up. But unfortunately, the database gave problem near the end of the semester, leading us to stop on that idea. He also set up GitHub and Discord. He trained the team on how use GiHub repository and how to push and pull code.

**User Testing**

User testing was split into two days, first day was in-person while the second day was on Zoom. On day one, all testers were able to successfully go through all the tasks we had assigned to them. Same as day one, testers on day 2 were also able to navigate through the tasks. Some testers took less time than others because they only wanted to go through the task and not really explore around. All of the testers gave very good ideas on what to change and add to project.

The major things that testers were expecting was removing items from the list, reordering the stop, and making the main feature (map/list/directions) more user friendly. They recommended us to move the inputs for the stops and list above the map, and also make the main feed un-scrollable. Some other things they advised or noticed was that they liked the mobile view and also didn’t notice the red waypoints on the map.

After the user testing done, we did have a couple thoughts about our testing. We could’ve make the task list a bit more challenging and wished the testing was more blind because the testers that are next would already know what to do.

**Future Work**

Since we weren’t able to implement a good amount of extra features on our current version, our version two implementation has a variety of implementations we want to add.

There are also a fair bit of deficiencies on our current version, especially on features that aren’t necessary. The search bar to look up accounts doesn’t work and neither do the notifications and messages. Another deficiency is that list of items doesn’t show up in a nice way.

The website is already pretty mobile friendly but want to make a little bit better. For example, the map and checklist could be placed better. The dropdowns for the icons could also be placed better.

We would also like the messaging and notification feature to work but we need to get firebase working first. We were really excited to implement this feature on the first version because it would make our project look and operate much more how we had first imagined it.

We could also improve it by displaying the directions so it would be easier for users to follow. We did have live map tracking partially working but we can improve it by making sure it updates more often like on typical navigation rather than every couple mins. We also can implement word recognition and audible directions in the second version.

Hop2It is still a only amateur level site with how it is and works. After implementing more features in the second version, it can be used more in the world by actual users.