

Team MacroHard (016-01)

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CSCI 3308 Software Development and Tools Course
University of Colorado Boulder
Boulder, CO, 80303

LUMI - Project Milestone 7

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PROJECT DESCRIPTION

Lumi is a website-based application focused on helping snowboarding and skiing enthusiasts to maximize their experience during the winter months. We realize that Colorado is known for its spontaneous weather where it can change in the matter of hours. We believe that most individuals who require one to two hour trips to certain ski resorts should be able to know if the ski resort has snow availability. Our goal is to help these individuals optimize such an opportunity and make sure they have the best experience possible. This application uses ejs, css, and bootstrap as its front-end while being integrated with nodejs, docker, and express as it's backend. The website uses PostGreSQL as its database tool in order to save account and personal information. It uses 3 different API's (snowMap, openWeather, and BCrypt) in order to display ski resort maps, get weather forecast information, and encrypt / decrypt passwords. It is currently deployed in a localhost but has plans to be deployed to Heroku. The future of this website is to add more practical functionality such as profile images, interactive UI, and finding better resources to obtain weather information.

PROJECT TRACKER → Trello

<https://trello.com/b/tmxxLKAI/lumi-kanban>

DEMO VIDEO

<https://drive.google.com/drive/folders/1tNZkCs-zbJCh4UD4NoRi708abkCSgsjl?usp=sharing>

GIT REPOSITORY

<https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01>

DEPLOYMENT → local host

First the website must be run through docker, so docker must be running in the background

Then you need to be in the Lumi directory, to get to Lumi use **cd lumi**

Afterwards run **docker-compose up -d** in order to start the website

Then in your browser, go to **http://localhost:3000**

CONTRIBUTIONS

Altay Uenal:

```
yo401c3 - optimumkaze, 8 weeks ago : test
raynersusanto@Rayners-MacBook-Pro CSCI-3308-Fall21-016-01 % git log --pretty=format:"%h - %an, %ar : %s" --author='Altay-Uenal'
68aeb8d - Altay-Uenal, 9 days ago : added hashing to change password option
cdf89c1 - Altay-Uenal, 11 days ago : finished password hashing and authentication
771346b - Altay-Uenal, 5 weeks ago : fixed server.js location
153e144 - Altay-Uenal, 5 weeks ago : added server.js

raynersusanto@Rayners-MacBook-Pro CSCI-3308-Fall21-016-01 % git log --pretty=format:"%h - %an, %ar : %s" --author='Altay Uenal'
b770d5d - Altay Uenal, 9 days ago : Merge pull request #51 from CU-CSCI-3308-Fall-2021/AltayUenal
4d30d55 - Altay Uenal, 11 days ago : Merge branch 'main' into hashing-branch
```

The work I did was a part of the backend javascript. My main contribution was introducing password hashing into our website in order to more securely store our users information. In order to accomplish this, I used an npm package called bcrypt. This gave me the tools I needed in order to implement an effective and secure way to hash user passwords for storage. Bcrypt allows you to hash a function using a salt that will make each hash unique, even if the same password is used. The salt is also stored as a part of the hashed password in order to avoid using another variable in the database to store the salt. I also made contributions to the user login function, and change password option, and also made sure that they both worked properly with bcrypt the bcrypt hashing.

Biswas Gauli:

```
raynersusanto@Rayners-MacBook-Pro CSCI-3308-Fall21-016-01 % git log --pretty=format:"%h - %an, %ar : %s" --author='biga6132'
42cb675 - biga6132, 2 weeks ago : home.js updated
ed92294 - biga6132, 3 weeks ago : Merge pull request #31 from CU-CSCI-3308-Fall-2021/Biswas_Gauli
7dd7d7b - biga6132, 3 weeks ago : snow data
331d048 - biga6132, 3 weeks ago : snow data
f6ad274 - biga6132, 3 weeks ago : Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into Biswas_Gauli
6905ec9 - biga6132, 3 weeks ago : snow data
644b57d - biga6132, 3 weeks ago : snow data
467b4be - biga6132, 5 weeks ago : displaying api data on home.html
```

I worked on the API implementation on the website. The API's that we used were called OpenWeatherMap API, and NewsAPI. At first I researched the top 10 ski resorts in Colorado and researched lots of different API's to find the API that gave the correct weather information we needed. I found the OpenWeatherMap API and then implemented it to display the current temperature, humidity, wind speed and snow expected on the home page using the layout Freddy had created. Then, I needed an API to display current news related to skiing on the home

page. I found an API called NewsAPI and implemented it so that a new news article is displayed everyday and the link to the news article.

Freddy Perez:

```
[raynersusanto@Rayners-MacBook-Pro CSCI-3308-Fall21-016-01 % git log --pretty=format:"%h - %an, %ar : %s" --author='OptimumRaZe'
527c9a8 - OptimumRaZe, 11 days ago : Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01
b2f692e - OptimumRaZe, 11 days ago : home.js fixed
fc04743 - OptimumRaZe, 13 days ago : Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01
c932e1c - OptimumRaZe, 13 days ago : Home done bois
6c8e54f - OptimumRaZe, 2 weeks ago : Merge pull request #43 from CU-CSCI-3308-Fall-2021/home.html
c6a034d - OptimumRaZe, 2 weeks ago : home.html
dd29ef5 - OptimumRaZe, 2 weeks ago : Merge pull request #42 from CU-CSCI-3308-Fall-2021/home.css
f17c39e - OptimumRaZe, 2 weeks ago : home.css
3462348 - OptimumRaZe, 4 weeks ago : freddy's home.html
3586e93 - OptimumRaZe, 4 weeks ago : freddy's home.ejs
b6a8a0b - OptimumRaZe, 5 weeks ago : Merge pull request #16 from CU-CSCI-3308-Fall-2021/BiswasGauli
ec8b6f9 - OptimumRaZe, 5 weeks ago : please
a1dbe50 - OptimumRaZe, 5 weeks ago : Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into main
7197559 - OptimumRaZe, 5 weeks ago : home5
d82df3a - OptimumRaZe, 6 weeks ago : Merge pull request #12 from CU-CSCI-3308-Fall-2021/homie
a50807c - OptimumRaZe, 6 weeks ago : landing page w js
e6a5561 - OptimumRaZe, 7 weeks ago : Merge pull request #6 from CU-CSCI-3308-Fall-2021/homie
5c7e231 - OptimumRaZe, 7 weeks ago : 4home
f7a3420 - OptimumRaZe, 7 weeks ago : Merge pull request #4 from CU-CSCI-3308-Fall-2021/checker
f7975a5 - OptimumRaZe, 7 weeks ago : 3home
3fb1f59 - OptimumRaZe, 7 weeks ago : Merge pull request #3 from CU-CSCI-3308-Fall-2021/freddy
7e2175e - OptimumRaZe, 7 weeks ago : 2home
28bef88 - OptimumRaZe, 7 weeks ago : Merge pull request #2 from CU-CSCI-3308-Fall-2021/freddy's
44d16f0 - OptimumRaZe, 7 weeks ago : Merge branch 'main' into freddy's
e8a8f38 - OptimumRaZe, 7 weeks ago : 1home.html
7af01d1 - OptimumRaZe, 7 weeks ago : freddy's commit
b7424b5 - OptimumRaZe, 8 weeks ago : navbar
964d1c3 - OptimumRaZe, 8 weeks ago : test
```

I mostly worked on the frontend, mainly the landing page. The first thing I did was create the general layout for the landing page. Inserting the cards, jumbotron, and table with dummy insert text. I then created the navigation bar that could be used throughout all the pages so that no page has a different navigation bar. Once all the pages had gotten their general layout I then Started filling in some of the information in the jumbotron and cards. I also created the home.js file to handle the load of the map and the ability to switch between the map and a weather table. I then helped with the API implementation of the weather table and what information was going to be shown in each card. Once API implementation had been completed, I then went over the landing page once again adding the CSS, changing the background color of the table and adding a color to the jumbotron.

Thor Breece:

```

raynersusanto@Rayners-MacBook-Pro CSCI-3308-Fall21-016-01 % git log --pretty=format:"%h - %an, %ar : %s" --author='thor-ium'
ae8df16 - thor-ium, 11 days ago : Higher definition picture of Biswas
43f8ffc - thor-ium, 11 days ago : Minor fixes to about.ejs
8b05bbd - Thor Breece, 2 weeks ago : Merge pull request #47 from CU-CSCI-3308-Fall-2021/thorbreece
758f9a7 - thor-ium, 2 weeks ago : Partially commented map code
8d24add - Thor Breece, 2 weeks ago : Merge pull request #41 from CU-CSCI-3308-Fall-2021/thorbreece
145e4e8 - thor-ium, 2 weeks ago : Switched maptest to map on server
ed4d35b - Thor Breece, 2 weeks ago : Merge pull request #37 from CU-CSCI-3308-Fall-2021/thorbreece
a094d2a - thor-ium, 2 weeks ago : Added basic styling for map
c63301a - thor-ium, 2 weeks ago : Added map to homepage
fcec7aa - Thor Breece, 2 weeks ago : Merge pull request #36 from CU-CSCI-3308-Fall-2021/thorbreece
8b2dcb2 - thor-ium, 2 weeks ago : changed map in navbar to reflect new file name
d2d1bc7 - Thor Breece, 2 weeks ago : Merge pull request #35 from CU-CSCI-3308-Fall-2021/thorbreece
f0d6861 - thor-ium, 2 weeks ago : renamed maptest.html ----> map.html
0ad156f - thor-ium, 2 weeks ago : renamed maptest.ejs ----> map.ejs
153115e - thor-ium, 2 weeks ago : resolved all differences with maptest.html
fd36229 - Thor Breece, 2 weeks ago : Merge pull request #33 from CU-CSCI-3308-Fall-2021/thorbreece
a230efc - thor-ium, 2 weeks ago : Added weather data to each ski resort
56c6a6c - Thor Breece, 4 weeks ago : Merge pull request #24 from CU-CSCI-3308-Fall-2021/thorbreece
9262264 - thor-ium, 4 weeks ago : Added filter feature for fly to buttons
62cf073 - thor-ium, 4 weeks ago : CSS Sample for Home page
7c6c426 - thor-ium, 4 weeks ago : Merge pull request #23 from CU-CSCI-3308-Fall-2021/thorbreece
7694d0d - thor-ium, 4 weeks ago : fixed navbar on all pages
6cdb2b6 - thor-ium, 4 weeks ago : Merge pull request #22 from CU-CSCI-3308-Fall-2021/thorbreece
410bb52 - thor-ium, 4 weeks ago : moved node_modules to js folder | baseline map js
9f6e20b - thor-ium, 4 weeks ago : legend images
826ab59 - thor-ium, 4 weeks ago : Added CSS for map page
54bad93 - thor-ium, 4 weeks ago : Added legend | navigation buttons | info display
7ac20eb - thor-ium, 4 weeks ago : Merge pull request #21 from CU-CSCI-3308-Fall-2021/thorbreece
aed9558 - thor-ium, 4 weeks ago : Fixed navbar issues
c2978da - thor-ium, 4 weeks ago : Merge pull request #20 from CU-CSCI-3308-Fall-2021/thorbreece
edac546 - thor-ium, 4 weeks ago : Fly To buttons and functionality added for all ski resorts
275c518 - thor-ium, 4 weeks ago : Merge pull request #19 from CU-CSCI-3308-Fall-2021/thorbreece
37b2c62 - thor-ium, 4 weeks ago : About footer
f2407bd - thor-ium, 4 weeks ago : map tester file (will be removed in final release)
fc5f674 - thor-ium, 4 weeks ago : node_modules for mapbox
f2b3d26 - thor-ium, 4 weeks ago : ikon and epic pictures
8968c82 - thor-ium, 5 weeks ago : Merge pull request #14 from CU-CSCI-3308-Fall-2021/thorbreece
a47e838 - thor-ium, 5 weeks ago : All profiles completed
d0bc5b1 - thor-ium, 6 weeks ago : Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into thorbreece
4d44990 - thor-ium, 6 weeks ago : Merge branch 'thorbreece' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into thorbreece
3f163ee - thor-ium, 6 weeks ago : restructured top cards
443d297 - thor-ium, 6 weeks ago : Merge pull request #10 from CU-CSCI-3308-Fall-2021/thorbreece
b91b619 - thor-ium, 6 weeks ago : Merge branch 'main' into thorbreece
ac1614d - thor-ium, 6 weeks ago : lumi logo, about.css, about.html updated
08ad40a - thor-ium, 6 weeks ago : CSS for about page mostly finished, a few tweaks still needed
24ba563 - thor-ium, 6 weeks ago : Basic layout of about us page (more work on css needed)
aafd30b - thor-ium, 7 weeks ago : progress on about us page
8920b3a - thor-ium, 8 weeks ago : created project folder
1cbd906 - thor-ium, 8 weeks ago : created project folder

```

I started out working with the css and layout of the about page to determine a good color scheme for the rest of the website. Once I had settled on some colors I got an image, github link, linkedIn link, and short description from each of the team members to display on cards. When the about us page was complete, I shifted my focus to the map. I started by doing a lot of research on free open sourced maps and decided on openstreetmap. I then found MapBox which allows you to easily implement openstreetmap layers onto maps. Using mapbox I added layers outlining each ski run and resort outline - pulling the data for each from openstreetmap queries. Mapbox also offers a bunch of javascript options to add interactive functionality to the map. I used the Mapbox provided function flyto in combination with onclick actions to display a 3D version of each ski resort. Using the same onclick, I hid/showed a description of each ski resort and the weather pulled from the openweather api.

Rayner Susanto:

```
[raynersusanto@Rayners-MacBook-Pro CSCI-3308-Fall21-016-01 % git log --pretty=format:"%h - %an, %ar : %s" --author='Rayner Susanto']
ceff9e49 - Rayner Susanto, 6 days ago : deleted test.txt
45d5640 - Rayner Susanto, 6 days ago : test.txt commit
6c6ee3c - Rayner Susanto, 6 days ago : Updated README.md
2f22ef5 - Rayner Susanto, 9 days ago : Add files via upload
37bbb43 - Rayner Susanto, 11 days ago : survey review
5d7247b - Rayner Susanto, 11 days ago : Merge pull request #49 from CU-CSCI-3308-Fall-2021/hashing-branch
cad57b0 - Rayner Susanto, 2 weeks ago : syntax fixing
997aae9 - Rayner Susanto, 2 weeks ago : Merge pull request #40 from CU-CSCI-3308-Fall-2021/database-backend
af029e1 - Rayner Susanto, 2 weeks ago : Merge branch 'main' into database-backend
1dc9f8e - Rayner Susanto, 2 weeks ago : fixing merge conflicts?
960db64 - Rayner Susanto, 2 weeks ago : remerging
6b5d05a - Rayner Susanto, 2 weeks ago : Merge branch 'database-backend' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into database-backend
8c3864a - Rayner Susanto, 2 weeks ago : remerging
9f27bd6 - Rayner Susanto, 2 weeks ago : syntax fixing
5acff63c - Rayner Susanto, 3 weeks ago : Merge pull request #32 from CU-CSCI-3308-Fall-2021/database-backend
4651b57 - Rayner Susanto, 3 weeks ago : Merge branch 'main' into database-backend
ae0d204 - Rayner Susanto, 3 weeks ago : login feature
2e9471c - Rayner Susanto, 3 weeks ago : Add files via upload
56f4348 - Rayner Susanto, 3 weeks ago : Merge pull request #28 from CU-CSCI-3308-Fall-2021/database-backend
7d5a2b3 - Rayner Susanto, 3 weeks ago : Latest changes with routes
c081f8e - Rayner Susanto, 3 weeks ago : personal information update
8a18f51 - Rayner Susanto, 3 weeks ago : registration almost working (missing connection between survey and modal page)
b391870 - Rayner Susanto, 3 weeks ago : Updated README.md
0ab48c8 - Rayner Susanto, 3 weeks ago : Merge pull request #27 from CU-CSCI-3308-Fall-2021/registration-page-revision
4db3621 - Rayner Susanto, 3 weeks ago : Minor changes towards registration and server.js file
3dd0115 - Rayner Susanto, 4 weeks ago : Merge pull request #26 from CU-CSCI-3308-Fall-2021/registration-page-revision
6ccbb07 - Rayner Susanto, 4 weeks ago : registration page and server.js update
6283b01 - Rayner Susanto, 4 weeks ago : Merge pull request #25 from CU-CSCI-3308-Fall-2021/convert-ejs
291545f - Rayner Susanto, 4 weeks ago : converted html into ejs
28612b3 - Rayner Susanto, 4 weeks ago : ejs converted into html
7da5561 - Rayner Susanto, 4 weeks ago : html has been converted to ejs and added navbar partials commit
0f77cf6 - Rayner Susanto, 4 weeks ago : ProjectMilestone4-commit
0f319dd - Rayner Susanto, 5 weeks ago : Merge pull request #9 from CU-CSCI-3308-Fall-2021/profile-branch
a33e905 - Rayner Susanto, 6 weeks ago : profile edit, tables added
72cc440 - Rayner Susanto, 6 weeks ago : profile-commit
8381810 - Rayner Susanto, 6 weeks ago : milestones3-upload
eeae50d - Rayner Susanto, 8 weeks ago : Add files via upload
f7fb3c9 - Rayner Susanto, 10 weeks ago : Project Milestone 1 Commit
8e41664 - Rayner Susanto, 10 weeks ago : Update README.md
3ea1bae - Rayner Susanto, 10 weeks ago : Update README.md
0a34451 - Rayner Susanto, 2 months ago : folders for submissions commit
```

I have mostly worked on backend technicalities. The first thing I set up was the server.js and the docker compose program in order to get the website running through a localhost. I then prepared the PostgreSQL through Docker in order to have a database that can be integrated into the front-end. I also then converted the html files into ejs in order to make it compatible with the backend and made sure that every package was downloaded correctly in order to be used correctly. I also set up the meetings and milestone documentation of the project in order for us to report to the TA every week. I tried making sure that all the required deadlines were met and made sure that we were on track with the project. I also made sure that in our project meetings that everyone could communicate any ideas or problems that they are facing while doing their tasks.

William Ruiz:

```
[raynersusanto@Rayners-MacBook-Pro CSCI-3308-Fall21-016-01 % git log --pretty=format:"%h - %an, %ar : %s" --author="willyt1200"
9af77c29 - willyt1200, 11 days ago : Merge pull request #50 from CU-CSCI-3308-Fall-2021/Willyt1200
7a03b1e - willyt1200, 13 days ago : Fixed reg.
ce773f3 - willyt1200, 2 weeks ago : Merge pull request #48 from CU-CSCI-3308-Fall-2021/Willyt1200
b78e0cc - willyt1200, 2 weeks ago : Small change to server.js
67d65b6 - willyt1200, 2 weeks ago : Merge pull request #46 from CU-CSCI-3308-Fall-2021/Willyt1200
6f4bc74 - willyt1200, 2 weeks ago : fixed survey -> error/home route
3f21fe4 - willyt1200, 2 weeks ago : Merge pull request #45 from CU-CSCI-3308-Fall-2021/Willyt1200
a5ae66e - willyt1200, 2 weeks ago : Implemented error page
db07328 - willyt1200, 2 weeks ago : Merge pull request #44 from CU-CSCI-3308-Fall-2021/Willyt1200
648db30 - willyt1200, 2 weeks ago : Finalized Error page, Finish page, Survey Page, and edited create.sql to have snowboardsize be a decimal instead of int
04a73e9 - willyt1200, 2 weeks ago : Merge pull request #38 from CU-CSCI-3308-Fall-2021/Willyt1200
88d82fa - willyt1200, 2 weeks ago : Touched up welcome page/error page
4168157 - willyt1200, 3 weeks ago : Merge pull request #30 from CU-CSCI-3308-Fall-2021/Willyt1200
883044d - willyt1200, 3 weeks ago : Added user function to database and implemented welcome and error pages
f757263 - willyt1200, 3 weeks ago : Merge pull request #29 from CU-CSCI-3308-Fall-2021/Willyt1200
585a7b0 - willyt1200, 3 weeks ago : testing signup/survey info
f1f2a4e - willyt1200, 3 weeks ago : Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into Willyt1200
0f95210 - willyt1200, 3 weeks ago : Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into Willyt1200
a2ed057 - willyt1200, 4 weeks ago : wq Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into Willyt1200
794d382 - willyt1200, 4 weeks ago : Small updates
2b623df - willyt1200, 4 weeks ago : Merge pull request #18 from CU-CSCI-3308-Fall-2021/Willyt1200
1533a0d - willyt1200, 4 weeks ago : Updated Registration/survey to follow site format
44e6463 - willyt1200, 4 weeks ago : Merge branch 'main' of https://github.com/CU-CSCI-3308-Fall-2021/CSCI-3308-Fall21-016-01 into Willyt1200
619c9bc - willyt1200, 6 weeks ago : Added more css for survey, and enabled functions for onclick. Along with various minor changes
56d4d3e - willyt1200, 6 weeks ago : Merge pull request #13 from CU-CSCI-3308-Fall-2021/Willyt1200
5018c79 - willyt1200, 6 weeks ago : survey.css added
e1c2e18 - willyt1200, 6 weeks ago : Merge pull request #11 from CU-CSCI-3308-Fall-2021/Willyt1200
fb0c9b0 - willyt1200, 6 weeks ago : Added survey page and fixed some minor things with registrations page
0f6de83 - willyt1200, 7 weeks ago : Merge pull request #7 from CU-CSCI-3308-Fall-2021/Willyt1200
c0ba3c4 - willyt1200, 7 weeks ago : Added CSS and changed some JS for the signup modal
3624700 - willyt1200, 7 weeks ago : Merge pull request #5 from CU-CSCI-3308-Fall-2021/Willyt1200
71e9b5e - willyt1200, 7 weeks ago : Added registration.css, registration.js (need to fix as the sign up modal is not popping up), and fixed sign-in page to be in the center and of certain width
9a2b4e0 - willyt1200, 8 weeks ago : Merge pull request #1 from CU-CSCI-3308-Fall-2021/Willyt1200
e5dc5f5 - willyt1200, 8 weeks ago : Registration page updated with login form and registration. need to add styling and functionality with JS
4478713 - willyt1200, 8 weeks ago : Added registration.html _ and contents
```

For my part of the project I mainly focused on some front-end aspects and some back-end. I started off by making a login and registration page using a modal and password checking to ensure it met certain requirements like having a capital letter and a length of 8. From there I then designed the front-end of the survey page in order to gather user information to store in the database for use in other aspects of the website. After completing those I went on to get the data working into the back-end with help from Rayner. We calculated the level based on the year and I also implemented error checking and making sure that all the fields were filled. If there was an error, it brought you to the error page that I designed which was just a basic “You found an error” with styling. If you correctly signed up then it would bring you to a welcome page where you saw some basic information about the site and a nav bar to return to the home page. Along with those, I also worked on some various small tweaks and bug fixes that were found in the server.js file and various CSS formatting issues.