Team MacroHard (016-01)

Altay Uenal, Biswas Gauli, Freddy Perez, Thor Breece, Rayner Susanto, William Ruiz
CSCI 3308 Software Development and Tools Course
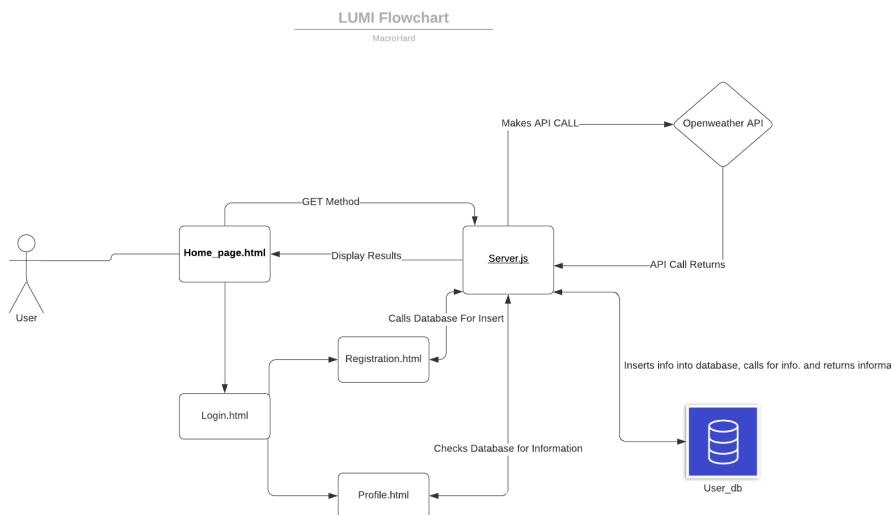University of Colorado Boulder
Boulder, CO, 80303

LUMI - Project Milestone 4

27th October 2021

REVISED FEATURES

1. Snow map feature will be delayed until better API is found, for now weather report table will be shown during the homepage
2. Added recommended features for skiing gear
3. Trip advising will not be added in the feature since there are not much API calls to develop for this features
4. Adding hashing password feature for users

ARCHITECTURE DIAGRAM

LUMI Flowchart
MacroHard

FRONT END DESIGN
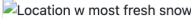
Welcome to LUMI

This site is used to show the current weather and snow conditions of various areas of Colorado.

Showing the path to Snow

Most Fresh Snow	Most Famous Ski Resort Reprt	Recent News
Location w most fresh snow	Image of SKI RESORT	Recent News HERE
Info about location w most fresh snow (js)	Info of most famous resort(js)	

Location	Current Weather	Snow pack	Open
LOCAL	WEATHER OF LOCAL	SNOW PACK OF LOCAL	IS OPEN OF LOCAL

Toggle table/map

ADD JS TO ADD ALL LOCATIONS

127.0.0.1:5500/Lumi/views/home.html ight CSCI-3308 MacroHard Fall 2021

LUMI by Macrohard

"Slogan or Caption here"

Lumi aims to iLUMInate you...

on the best places to ski and snowboard! Using
weather data and our reccomendation algorithm,
we give you personalized suggestions on great ski resorts!

We use a variety of APIs including...

News Api - 'description including link'
Weather Api - 'description including link'
Map Api - 'description including link'

Meet the Developers!

Biswas Gauli

I'm a Computer Science major at CU Boulder. I'm from Boulder, Colorado. I also like snow cones.

Thor Breece

I am a computer science student at the university of Colorado Boulder pursuing a career in Artificial Intelligence. I am currently looking for internships. I am from San Fracisco California and love our Bay Area sports teams, Go Warriors!

Altay Uenal

I am currently a computer science student at the University of Colorado Boulder. I have been interested in computers and coding from a young age thanks to my father exposing me to the field early on.

LUMI   Home   Profile   About Us

- Login/Registration

Lumi

Please sign in

Email address

Password

☐

Remember me | Forgot Password?

Sign in **Sign Up**

© 2020-2021

Sign Up

First Name

Last Name

Password

Confirm Password

Sign Up

Password must contain the following:

× A **lowercase** letter

× A **capital (uppercase)** letter

× **A number**

Lumi car care

How long many years have you skied?

Years

How many days a season do you ski?

Days

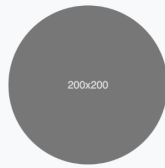| Height	Weight	Shoe Size
le. 70in	le. 160lb	Size

○ Skier ○ Snowboarder

Submit

200x200

John Doe
John.Doe@hotfire.com
johndoe00
Beginner Snowboarder
Joined May,2021

Full Name	Joe Smith

Full Name	Joe Smith
Email Address	Joe.smith@hotfire.com
Password	
Confirm Password	
Height	Weight

Submit

Ski Resort

Name	Temperature (F)	Snow Forecast (Inch)
Name 1	80	20
Name 2	80	20
Name 3	80	20

Gear

Snowboard Length	Inch
Ski Pole Length	Inch
Type of Boots	Size

Please use the checklist below to bring additional items be
snowboarding

☐ Ski Masks

John Doe
John.Doe@hotfire.com
johndoe00
Beginner Snowboarder
Joined May,2021

WEB SERVICE DESIGN

```
 1      // 20211029172706
 2      // https://api.openweathermap.org/data/2.5/weather?zip=20712,&appid=4ed6690f3c6542b4b2e6f6878895de1a
 3
 4    ▾ {
 5    ▾    "coord": {
 6            "lon": -76.9652,
 7            "lat": 38.9431
 8         },
 9    ▾    "weather": [
10    ▾       {
11              "id": 804,
12              "main": "Clouds",
13              "description": "overcast clouds",
14              "icon": "04n"
15            }
16         ],
17         "base": "stations",
18    ▾    "main": {
19            "temp": 287.71,
20            "feels_like": 287.73,
21            "temp_min": 285.94,
22            "temp_max": 289.36,
23            "pressure": 997,
24            "humidity": 96
25         },
26         "visibility": 10000,
27    ▾    "wind": {
28            "speed": 1.34,
29            "deg": 45,
30            "gust": 3.58
31         },
32    ▾    "clouds": {
33            "all": 90
34         },
35         "dt": 1635549934,
36    ▾    "sys": {
37            "type": 2,
38            "id": 2008951,
39            "country": "US",
40            "sunrise": 1635507122,
41            "sunset": 1635545453
42         },
43         "timezone": -14400,
44         "id": 0,
45         "name": "Mount Rainier",
46         "cod": 200
47      }
```

The web service used in our project is called OpenWeather. The picture above shows all of the data being received from the OpenWeather API in json formatting. The data used in our web app is the temperature, humidity, wind speed and the snow if there is any.

OpenStreetMap - open sourced map data that can be visualized as an overlay on a map Mapbox - a software/api that allows you to integrate openstreetmap data onto a map easily and in a visually pleasing way. Mapbox GL JS. Package that allows further customization and is used to embed the map on a website without the limitations of using html's <iframe> tag

DATABASE DESIGN

Registered Users
ID
Name
DateOfBirth
Address
Email
Username
Password
Level
Height
Footsize
FavoriteList

CHALLENGES

- Users unable to switch tabs if logged in due to no patching
- Password might still be kept in unsafe ways since hash table is not completed
- No password recovery settings or backup for logged in users
- A high chance of not being tested through automation

INDIVIDUAL CONTRIBUTIONS

Altay Uenal ➜ Researched API's to use for weather and maps and read through their documentation

Biswas Gauli ➜ Implemented Weather Api to display data of each of the top 10 ski resorts in all of Colorado. The data is displayed on the home page, this data includes the current temperature, humidity, wind speed and the amount of snow expected.

Freddy Perez ➜ Created a responsive landing page for website with working navbar, buttons, and information layout

William Ruiz ➜ Front end of the Login/Registration page, has a working modal pop-up for registration. Need to incorporate a database now and password checking in order to complete the signup process and login.

Thor Breece ➜ Still finishing the css and developing ski map using openstreetmap and integrated through mapbox

Rayner Susanto ➜ Setting up docker-compose.yml file and node.js for the database, reformatting the website to use ejs instead of html in order to apply dynamic changes towards the html file