CHARGEAZY

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Problem Statement

The need for a web application that shows the area of EV charging stations close by is increasing as the quantity of electric vehicles out and about increases. Since the scope of electric vehicles is restricted, it's basic for drivers to have the option to rapidly find charging stations while they're making the rounds. A web application that shows clients a continuous guide of neighboring charging stations can help vehicles in doing this.

Drivers of electric vehicles can profit from a web application that shows the area of neighboring EV charging stations. With its help, they can recognize charging stations rapidly and essentially, and it can arm them with the data they need to settle on an educated conclusion about a charging technique.

Scope

Clients may likewise approach different administrations through the web application, for example, the ability to save their favored charging areas, find a charging website, and hold a charging time ahead of time. With these highlights, charging stations might be simpler to find and utilize, making it more probable that clients won't run out of force.

Other data about charging focuses, for example, the sort of charging point, the expense of charging, and the accessibility of the charging point, can likewise be given utilizing the web application. Drivers can involve this data to choose the ideal charging station for their need.

Functional Requirements

The app must allow users to search for EV charging points by location. The search should allow users to specify the following criteria:

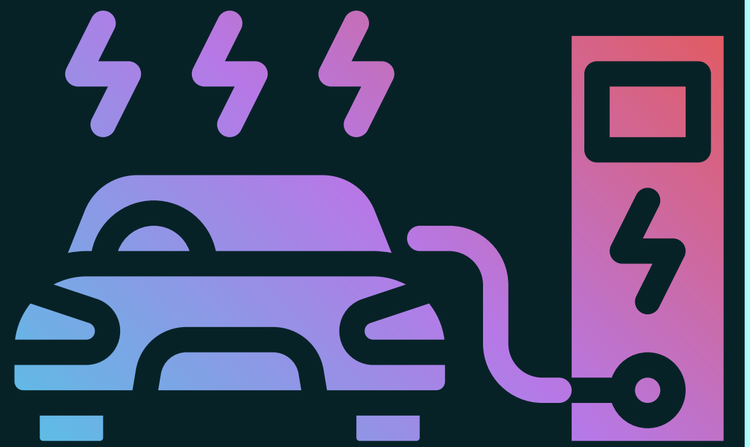
·The type of charging point (e.g., public, private, fast, slow)
·The price of charging
·The distance from the user's current location
·The availability of the charging point
·The app must display the location of each charging point on a map. The map should be interactive, allowing users to zoom in and out and pan around.

Non-functional Requirements

·The app must be available 24/7. The app should be accessible to users at any time of day or night.
·The app must be responsive and load quickly. The app should not take more than a few seconds to load, even on slow internet connections.
·The app must be secure. The app should protect users' personal information from unauthorized access.
·The app must be accessible to users with disabilities. The app should be designed to be accessible to users with disabilities, such as those who are blind or visually impaired.
·The app must be compatible with all major browsers. The app should work on all major web browsers, such as Chrome, Firefox, and Safari.

Users

Drivers: Drivers can use the web app to find charging points when they are on the go.
Businesses: Businesses that offer EV charging can use the web app to promote their charging points to drivers.
Government agencies: Government agencies can use the web app to collect data about EV charging usage.
Charging point operators: Charging point operators can use the web app to manage their charging points.
EV enthusiasts: EV enthusiasts can use the web app to learn about EV charging and to find charging points in their area.



Use cases

A driver is on a road trip and needs to find a charging point. They use the web app to search for charging points in their area and to get directions to the nearest one.

A business owner wants to promote their EV charging points to drivers. They use the web app to create a listing for their charging points and to set up a reservation system.

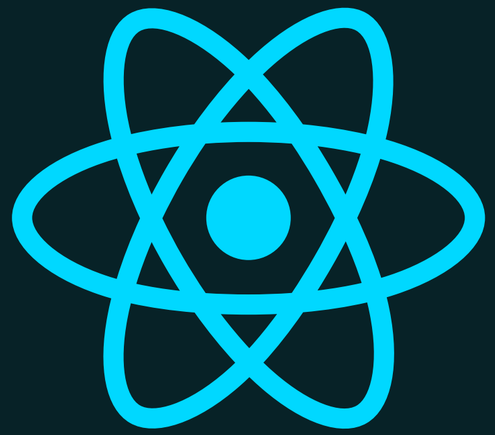
A government agency is collecting data about EV charging usage. They use the web app to collect data from charging point operators and to track the usage of charging points over time.

A charging point operator wants to manage their charging points. They use the web app to track the usage of their charging points, to receive payments, and to provide customer support.

An EV enthusiast wants to learn about EV charging. They use the web app to read articles about EV charging and to find charging points in their area.

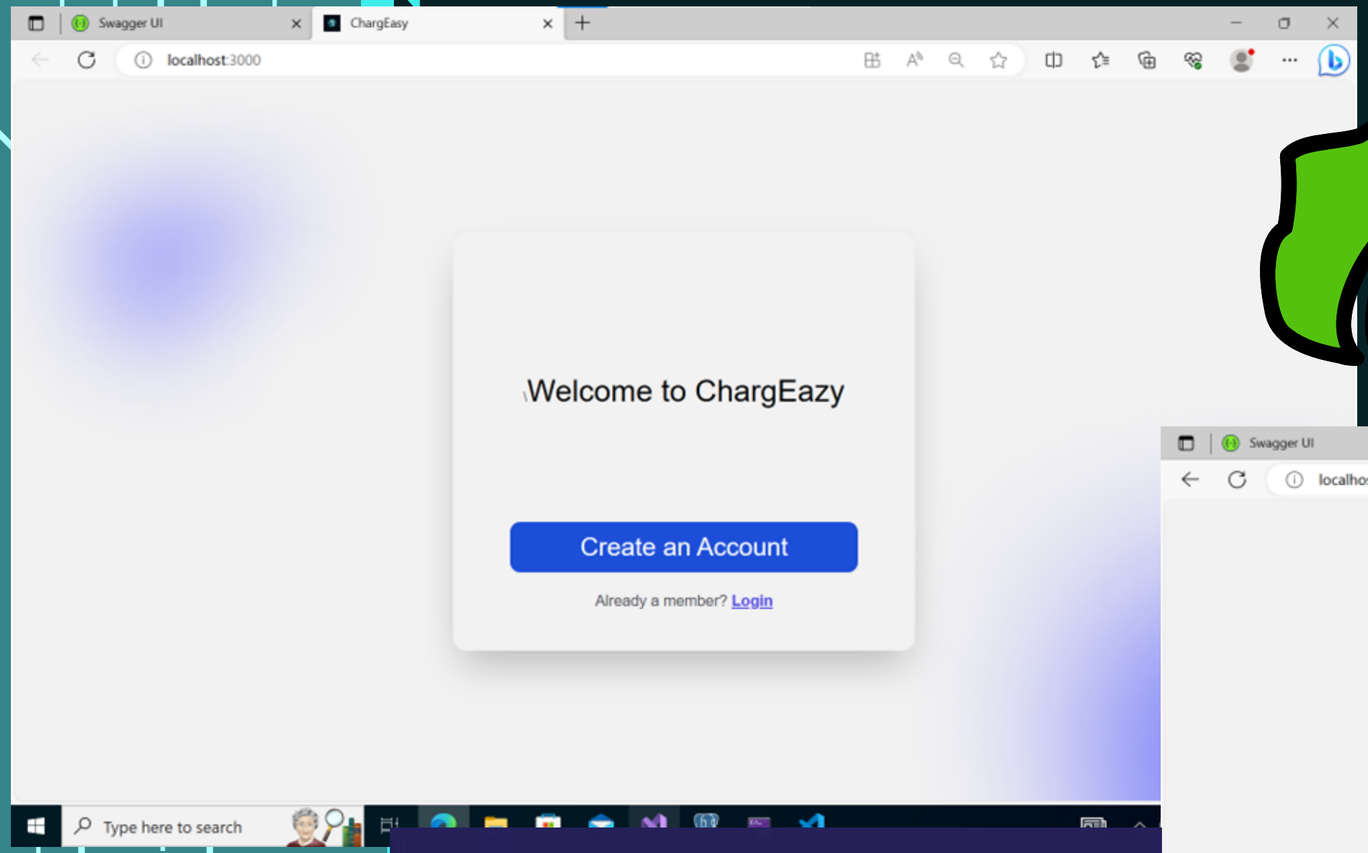
Technologies Used

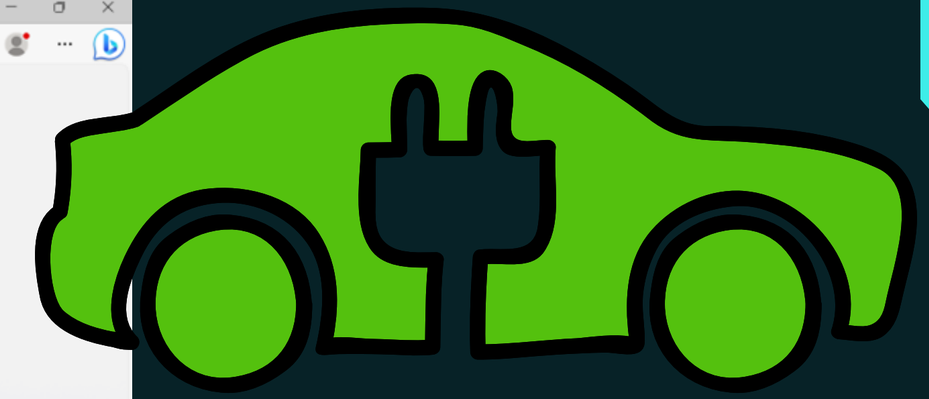
-> ReactJS
-> PostgreSQL
-> C#
-> .Net

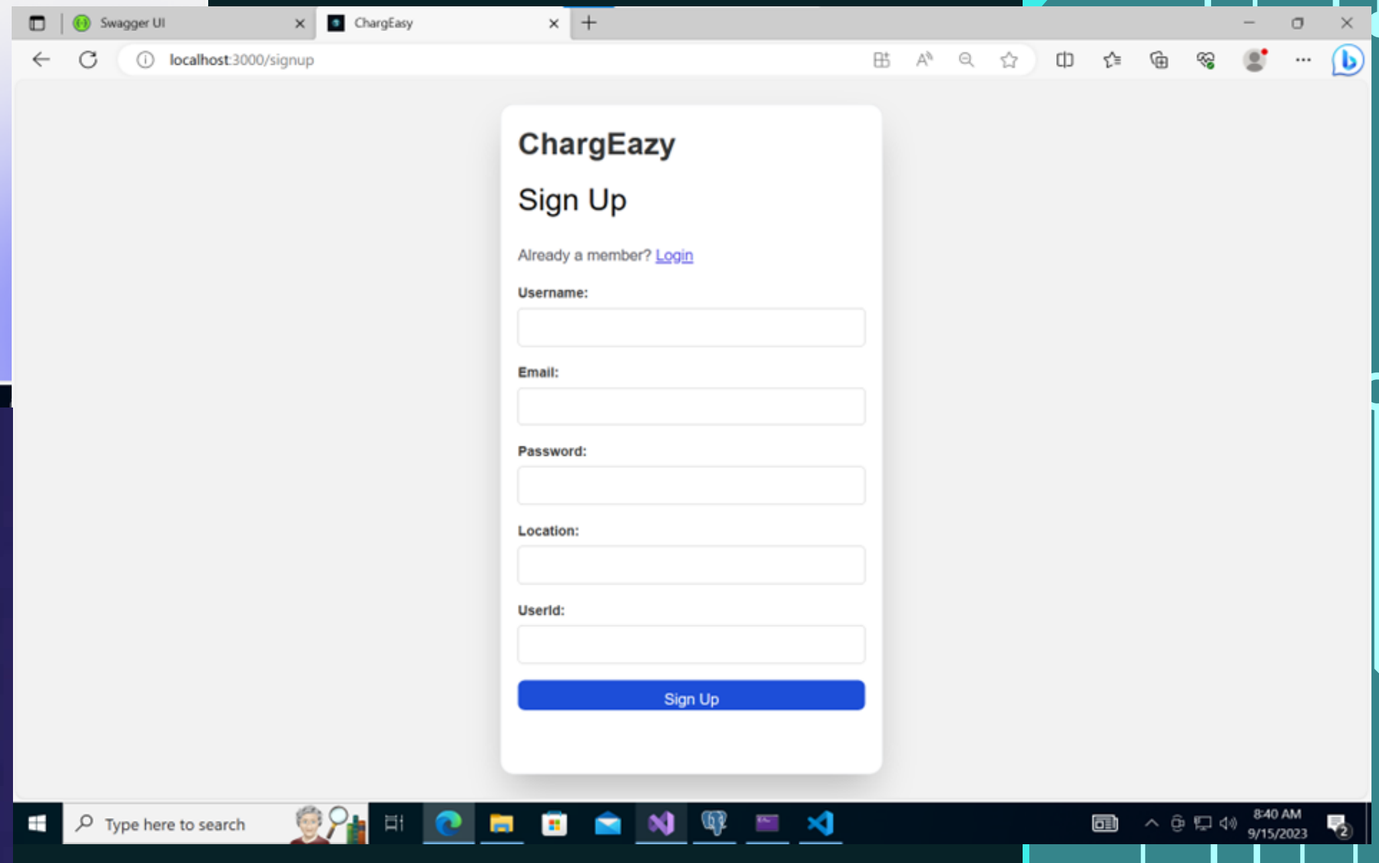


.NET

Outcome


Swagger UI
ChargEasy
localhost:3000
Welcome to ChargEazy
Create an Account
Already a member? Login




Swagger UI
ChargEasy
localhost:3000/signup
ChargEazy
Sign Up
Already a member? Login
Username:
Email:
Password:
Location:
UserId:
Sign Up
Type here to search
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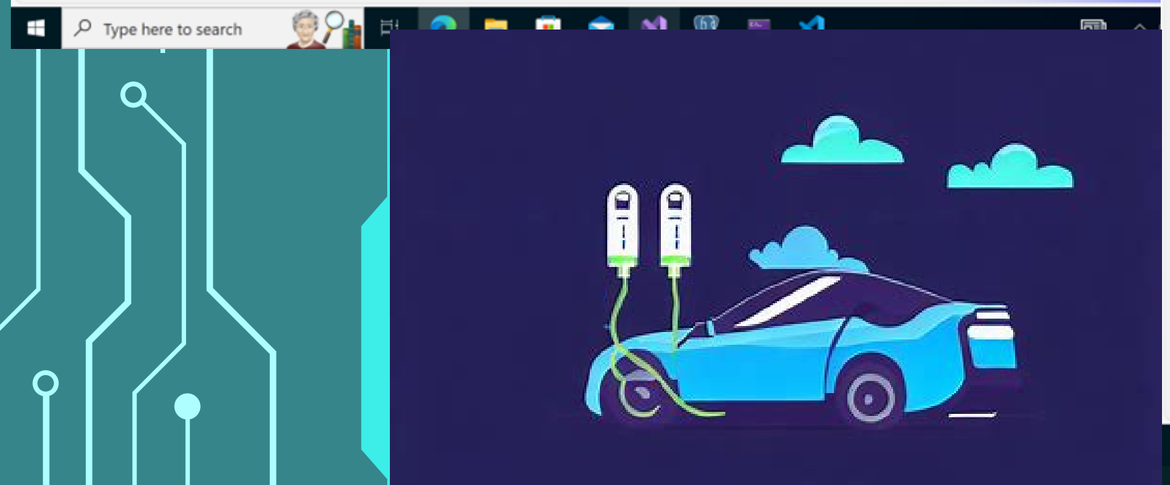
9/15/2023


Type here to search

Outcome

Swagger UI | ChargEasy

localhost:3000/signin

Sign in

New to ChargEazy? Signup

Email:

Password:

Continue

Swagger UI | ChargEasy

localhost:3000/find

Go to Home - Logout

Nearest EV Charging Station

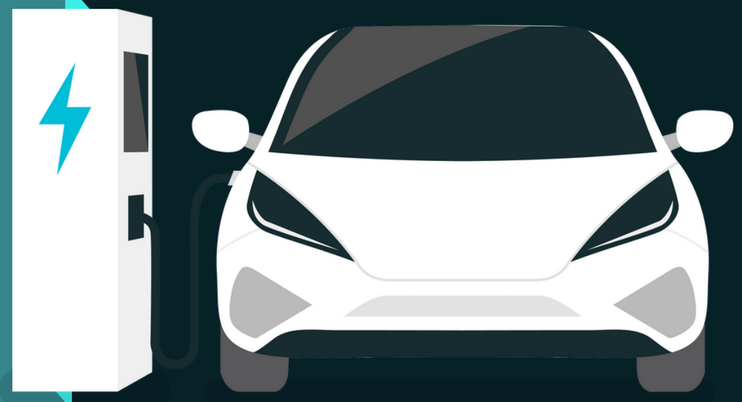
Select an option or use your current location

Select a Location

Find Stations

OR

Use Current Location



Type here to search

Type here to search

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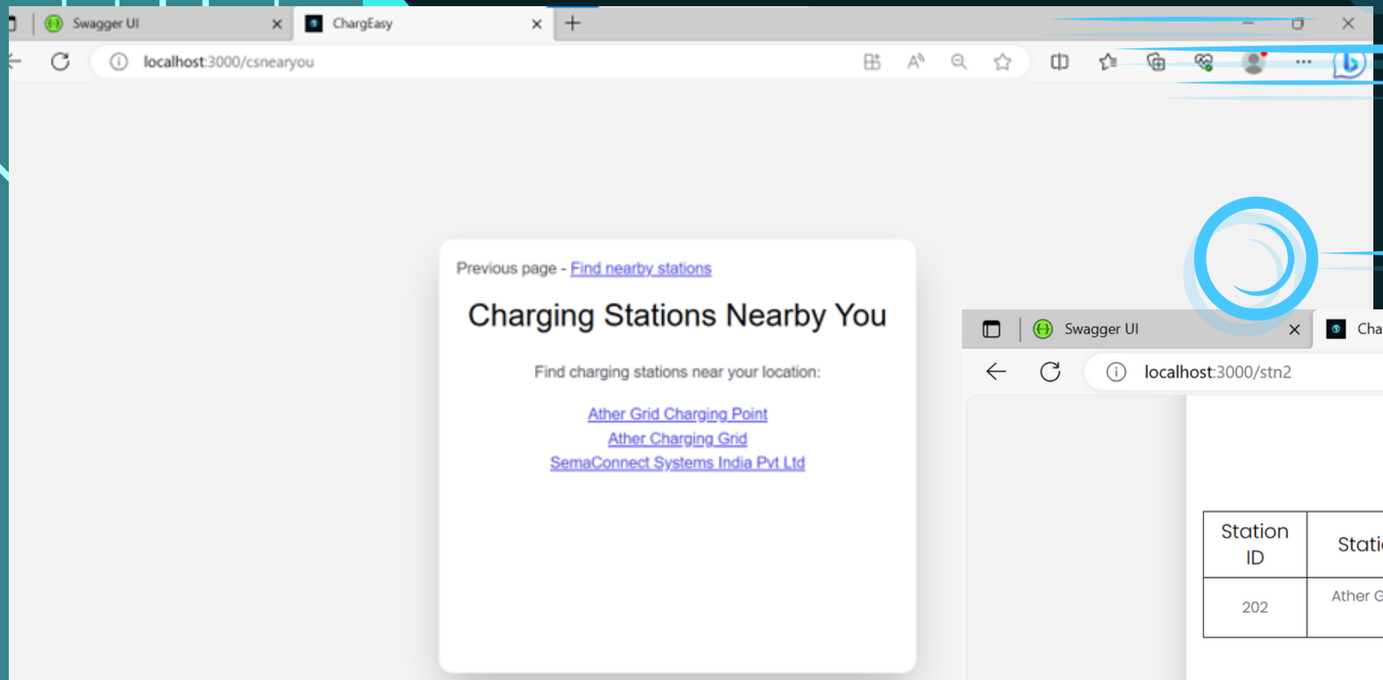
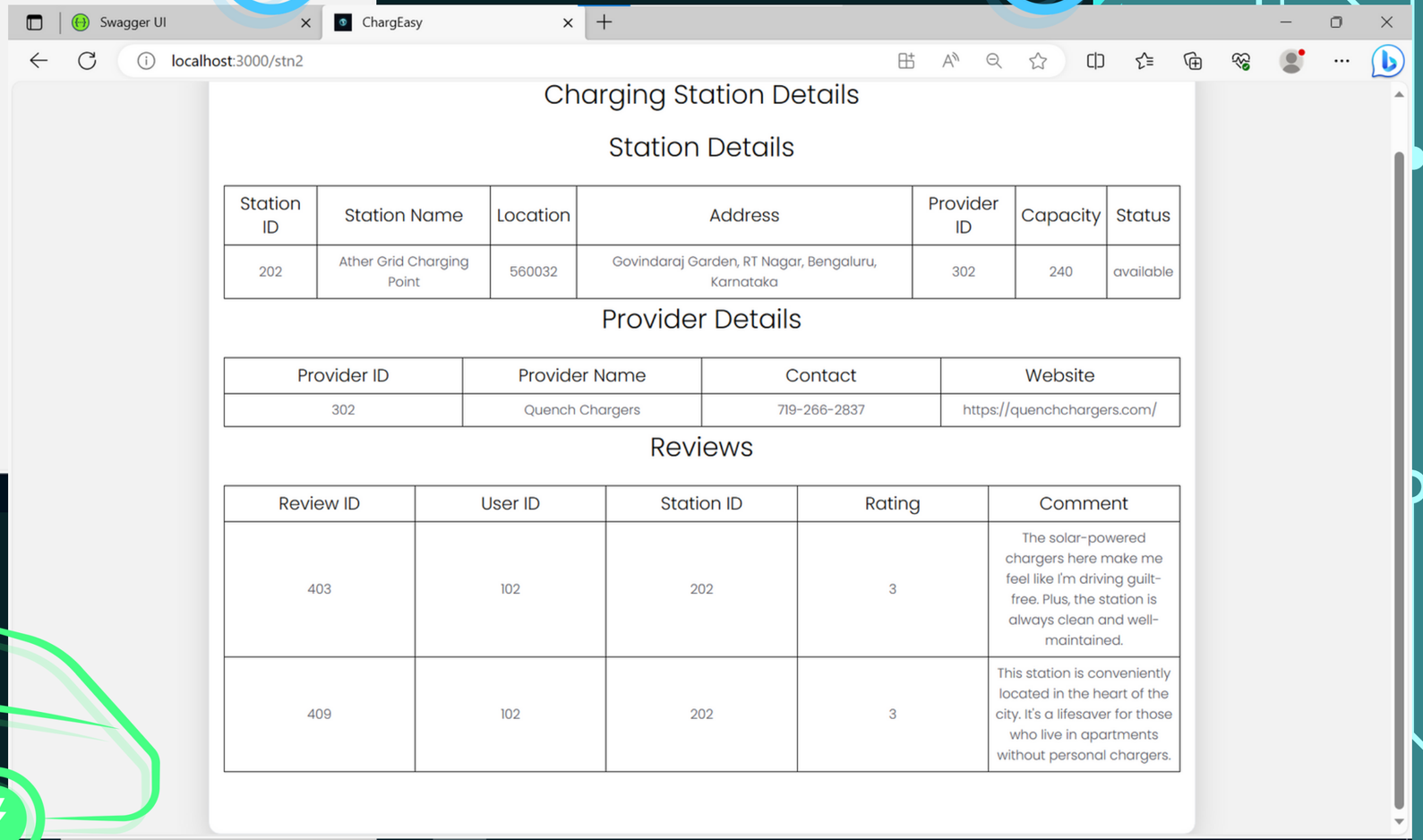
Outcome


Swagger UI
ChargEasy
localhost:3000/csnearyou
Previous page - Find nearby stations
Charging Stations Nearby You
Find charging stations near your location:
Ather Grid Charging Point
Ather Charging Grid
SemaConnect Systems India Pvt Ltd


Swagger UI
ChargEasy
localhost:3000/stn2
Charging Station Details
Station Details
Station ID | Station Name | Location | Address | Provider ID | Capacity | Status
202 | Ather Grid Charging Point | 560032 | Govindaraj Garden, RT Nagar, Bengaluru, Karnataka | 302 | 240 | available
Provider Details
Provider ID | Provider Name | Contact | Website
302 | Quench Chargers | 719-266-2837 | https://quenchchargers.com/
Reviews
Review ID | User ID | Station ID | Rating | Comment
403 | 102 | 202 | 3 | The solar-powered chargers here make me feel like I'm driving guilt-free. Plus, the station is always clean and well-maintained.
409 | 102 | 202 | 3 | This station is conveniently located in the heart of the city. It's a lifesaver for those who live in apartments without personal chargers.
Type here to search
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9/15/2023

THANK YOU