**PROJECT PROPOSAL**

*Campster*

*A Full-Stack web application using Node.js and JavaScript*

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## Project Abstract

Campster is a full-stack web application that utilizes Node.js and JavaScript. This application takes inspiration from the Yelp app that most people are familiar with. Campster will revolve around camping where the users will be able to view different camping trips and choose to register for said camps and leave reviews. The user reviews will be available to everyone to view at their convenience. There will be an individual reviews/scores from each user and one overall score that is based on the accumulated reviews for said camping location. The application will contain a fully functional login system. The user can login and host camping events or they can join events created by other people. Each location will have details about it like price, address, number of people registered, how many spots are left (if applicable) and some pictures of the place. The users can also share private messages with other users, and they can add each other on their friend list. A functional wallet system will also be incorporated for users to add their funds. And lastly, if time permits, this application will contain a map like google earth or apple maps where the camp will stand out and the user can then click them and view the details.

Here are mock up images of how some of the features might look in the future:

Graphical user interface, text, application

Description automatically generated

Graphical user interface, application

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Graphical user interface, application

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Diagram

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## Conceptual Design

Campster will work on any operating system, and it is a full stack web application so anyone should be able to access it. The project will have a front end built with Bootstrap and EJS templates. The camps will be displayed to the user and will be stored in a MongoDB database. Users will have full CRUD (Create, Update, Destroy) functionality and they will communicate with the server using a series of middleware. The back end will be built using JavaScript and Node.js alongside its many modules will be used to set up the end points, middleware and the login system. Mongoose will be used to link the back-end code with MongoDB. The library used to build the endpoints is Express.js and the library used for the login system will be Passport.js. The passwords will be encrypted so there will be libraries used for encryption as well. The friend and private messaging system will be handled with the help of Passport.js and the database. The libraries concerning the map are still TBD.

## Proof of Concept

Git Repository: <https://github.com/Endri2001/Campster>

The repository contains the skeleton code needed to start the project. The code includes some basic endpoints and the connection with the database is completed and functional. There are some mock data included in the database and displayed on the screen to verify that everything works fine.

**Background**

This project is something that I wanted to try, and it is heavily inspired by other working products on the real world like [Yelp](https://www.yelp.com/) and [Google Maps](https://www.google.com/maps)/Apple Maps (the map functionality that I am aiming for). I am trying to add my own twist to this already existing idea by adding my own front-end design and adding new features. This includes the addition of a personal wallet and having the ability to add friends and exchange private messages with them.

## Required Resources

A participant needs to have an IDE installed and functional, Node.js and MongoDB. The rest of the libraries are found on node and can be installed afterwards.