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Project 2 Poolboi
MVC Web App
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What is it?

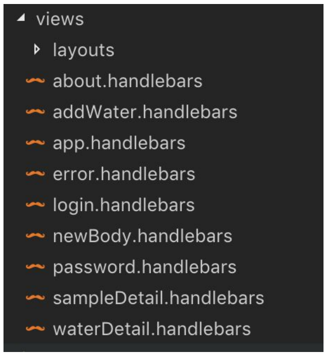
Poolboi is a web application that lets users keep track of their pool and spa water test results.

How is it Profitable?

Poolboi would likely start as a subscription based software where there is a monthly and annual payment plans. If the app was successful I would like to sell it to a pool or spa company, or even a chemical company. This could allow water management to become a completely automated process.

Templates:

Poolboi uses templates for all of the views on the side. The rest of the content in the app is created dynamically as react components that live in each view.



```
views
  layouts
  about.handlebars
  addWater.handlebars
  app.handlebars
  error.handlebars
  login.handlebars
  newBody.handlebars
  password.handlebars
  sampleDetail.handlebars
  waterDetail.handlebars
```

Mongo Usage:

Poolboi uses three different collections. It has an account collection for user accounts, a water body collection which is linked to an account and keeps track of how many pools or spas a user has. Lastly a water sample collection holds the basic data from a water sample and is linked to a water body.

MVC:

MVC is used to dynamically render in view based on what view the user requests. There are views for login, water body creation, water sample creation, and errors.

Above & Beyond:

For this project I decided to build dynamic form views based on what users have previously entered. The forms also auto fill with prefilled data based on what the user has entered. It incorporates weather data from the DarkSky API. Unfortunately I did not get to incorporate custom styles or graphs.

Notes:

When you create an account if you enter an invalid zip code it will break the app. I ran out of time to validate the zip. What happens is the main view needs to render with weather data. If the zip is invalid it can't get weather data and the react component fails to load and so does all of its children. Moving forward I would like to continue with this project and use D3 to add charts and passport.js for more login options. Ultimately I would also like to have an IOT device be able to add data to the app too.