

## Final Projects

Web Development  
Lesson 21.1



We are almost there...



# Look at all you have learned!

<b>The Browser</b> <ul style="list-style-type: none"><li>• HTML</li><li>• CSS</li><li>• JavaScript</li><li>• jQuery</li><li>• Bootstrap</li></ul>	<b>Dev Tools</b> <ul style="list-style-type: none"><li>• Heroku</li><li>• Git</li><li>• GitHub</li></ul>	<b>Server Side</b> <ul style="list-style-type: none"><li>• Templating Engines</li><li>• Sessions</li><li>• Writing tests</li><li>• Node.js</li><li>• Express.js</li><li>• Creating APIs</li><li>• MVC</li><li>• User Authentication</li><li>• ORM (Sequelize)</li></ul>
<b>API Interaction</b> <ul style="list-style-type: none"><li>• APIs</li><li>• JSON</li><li>• AJAX</li><li>• Real Time Cloud Database via Firebase</li></ul>	<b>Databases</b> <ul style="list-style-type: none"><li>• MySQL</li><li>• MongoDB</li></ul>	
<b>Cutting Edge Development</b> <ul style="list-style-type: none"><li>• React.js</li></ul>		<b>CS Fundamentals</b> <ul style="list-style-type: none"><li>• Algorithms</li><li>• Data Structures</li></ul>

# Your Goals Re-examined

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And why do you want a new career?



To pursue a **dream**



To escape a **dead-end job**



To be able to **create**



To follow a **fascination**



To attain **financial stability**



To obtain **financial freedom**



To **challenge yourself**



To be a **role model** to kids

# What's Left

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01

Final Projects

02

Remaining Topics: Computer Science Algorithms, Javascript Design Patterns

# Never Stop Learning!

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01

The key to hireability and relevance is to constantly be learning.

02

The field is always changing and there is never a point where you can call it quits.

03

Stick with it! It's a craft that you continue to hone with time.

# Final Projects



# Your Challenge



# Your Challenge

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You have plenty of time to work on this.



You have ALL the skills you need.



You have a team of skilled developers.



You have experts willing to help.



No excuses. Time to prove yourself.



# Expectations

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1. We expect whatever you build to have utility.
2. We expect you to have market or real-world research that evidences your idea has REAL value to people.
3. We expect you to have done research on other web/mobile applications in your domain.
4. We expect you to put serious time and thought into this.
5. We expect you to report problems you are facing along the way.
6. We expect you to utilize some form of project management system.
7. We expect you to dig deep into documentation and external resources to learn what you need.

# Requirements

# Coding Requirements

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- Must use **ReactJS** in some way (even if minimal)
- Must use a **Node and Express Web Server**
- Must be backed by a **MySQL or MongoDB Database with a Sequelize or Mongoose ORM**
- Must have **both GET and POST routes** for retrieving and adding new data
- Must be **deployed using Heroku (with Data)**
- Must utilize at least **two libraries, packages, or technologies** that we haven't discussed
- Must allow for or **involve the authentication of users** in some way
- Must have a **polished frontend/UI**
- Must have **folder structure that meets MVC Paradigm**
- Must meet **good quality coding standards** (indentation, scoping, naming)
- Must not expose **sensitive API key** information on the server

# Deliverables

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Instead of homework, you will be required to submit four Project Deliverables.

01

Plan, Design, and Research

02


Ready MVP (Working App!), Mini-Presentation

03

Project Polish, Functionality Push, Final Plan

04

Presentation Time!



# **Deliverables 1:**

## Plan, Design, and Research



# Deliverables 1: Plan, Design, and Research

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In this plan, you will include:

01

An overview of the intended application and WHY you feel it's valuable.

02

A set of DETAILED screen-by-screen design layouts with annotations describing all UI/UX components and all data relevant to the screen.

03

A breakdown of roles by group member.

04

A schedule for completion of various tasks.

05

A screenshot of your Project Management Board that shows breakdown of tasks, assigned to group members with a schedule.

# Example UI/UX Flow

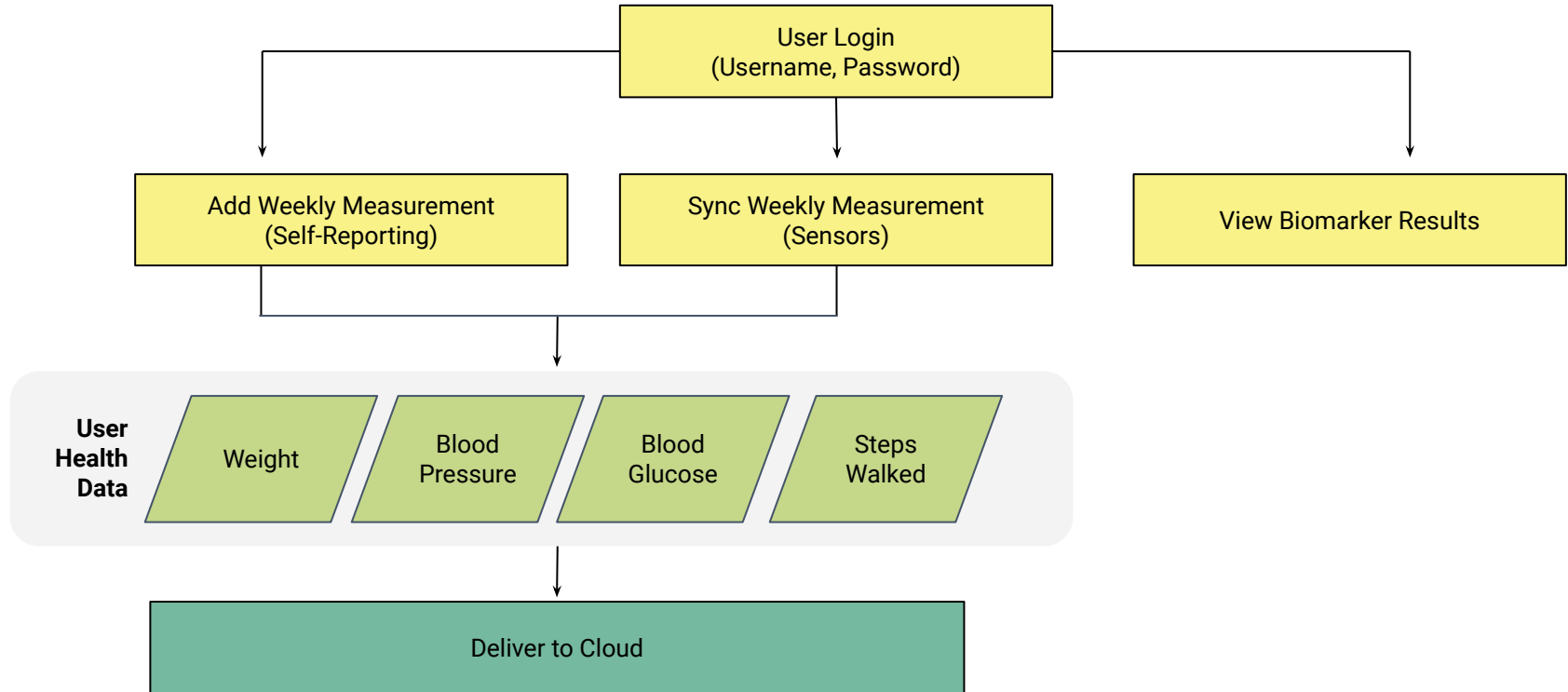
## Screen Map

This is intended to show you the order in which users would see screens. The three branches correlate with the three button options from the main menu.



# Example Data Flow

## User View—Clinical Trial App





Questions?