



Dashboard PDR Presentation

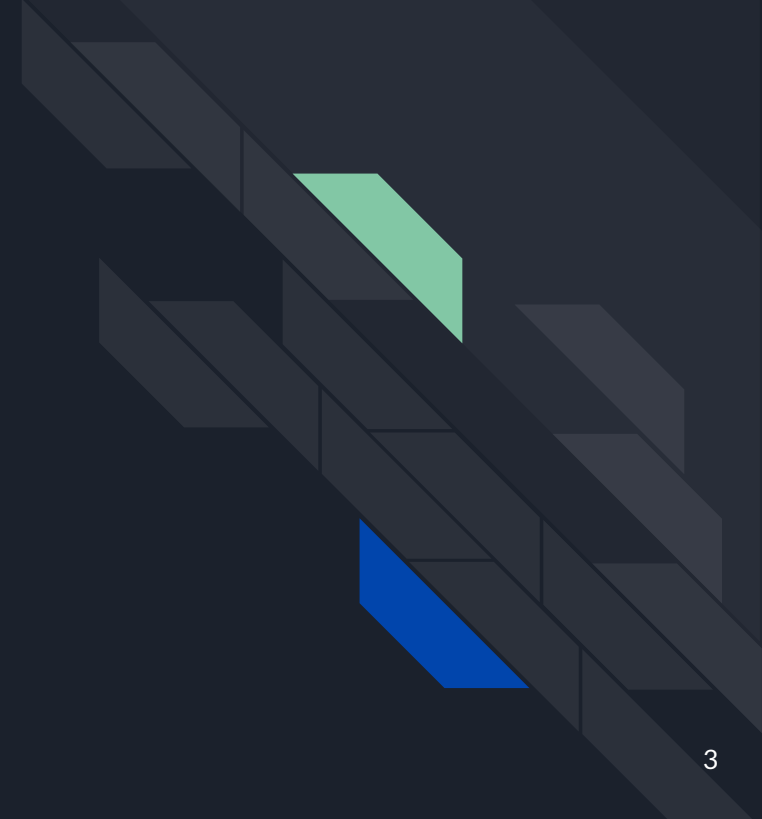
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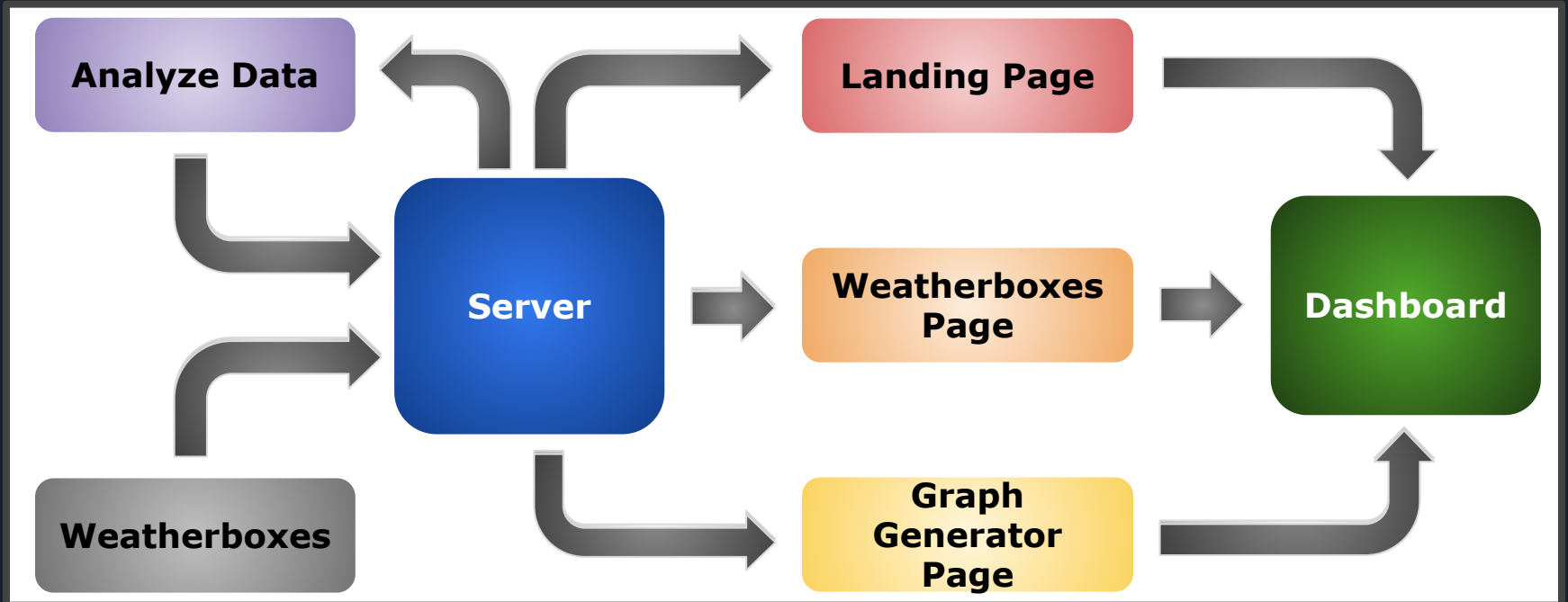
Overview

- 1) Overall Block Diagram**
- 2) Progress Since Proposal Presentation**
- 3) Problems Encountered**
- 4) Team's Progress**

Overall Block Diagram



Overall Block Diagram



Progress Since Proposal Presentation

Coding Exercises and Documentation

- Familiarize self with JavaScript and ES6
- Create a simple React app

		X
	X	
		O

Next player: O

1. Go to game start
2. Go to move #1
3. Go to move #2
4. Go to move #3



React Exercise

- **Task 1: Accumulate and display button clicks depending on button being pressed.**
- **Task 2: Break up main file into components.**
- **Task 3: Install and understand Semantic React.**



Welcome to SCEL

Press a button.

Left Button

Right Button

Left button was clicked 6 times.
Right button was clicked 3 times.

Design Procedure

**Design &
Mockup**



**Generate
Electronic
Copy**



**Create
Design
Document**



**Develop
Minimum
Viable
Product
(MVP)**

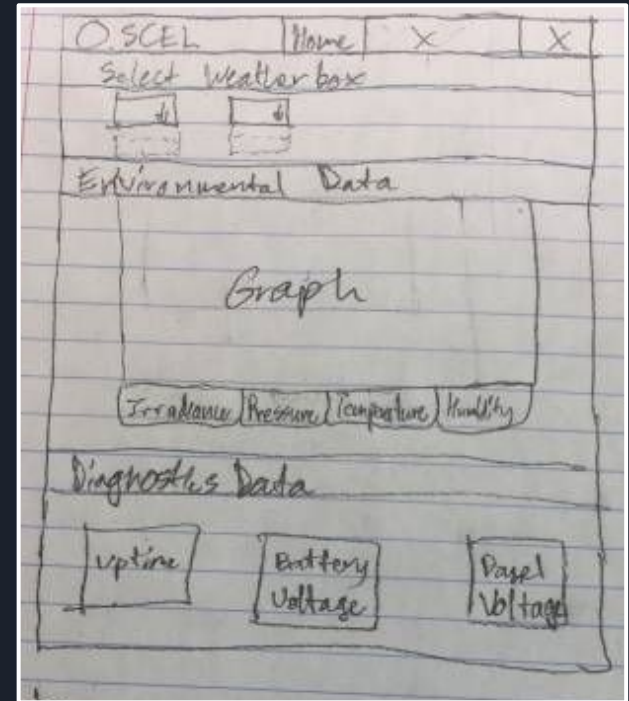


**Re-evaluate
Design
Document**



Design and Mockup

- Select a weatherbox and a node
- Shows environmental and diagnostics graphs for selected weatherbox and node



Electronic Copy and Design Document

The screenshot displays a web interface for the Smart Campus Energy Lab. At the top, there is a navigation bar with a logo, the title "Smart Campus Energy Lab", and three menu items: "Home", "Weatherboxes", and "Graph Generator". Below the navigation bar is a "Weatherbox Selection" section containing two dropdown menus: "Select weatherbox..." and "Select node...". The main content area is divided into two primary sections: "Environmental Data" and "Diagnostics Data".

The "Environmental Data" section features a large central graph area labeled "Environmental Data Graph". Below the graph, there are four data points, each with a circular icon and a label: "Solar Irradiance", "Pressure", "Temperature", and "Humidity".

The "Diagnostics Data" section is organized into three columns, each containing a graph and a corresponding data point label at the bottom:

- Column 1: "Uptime Graph" with a label "Uptime".
- Column 2: "Battery Voltage Graph" with a label "Battery Voltage".
- Column 3: "Panel Voltage Graph" with a label "Panel Voltage".

Logo Smart Campus Energy Lab Home Weatherboxes Graph Generator

Weatherbox Selection

Select weatherbox... ▾ Select node... ▾

Environmental Data

Environmental Data Graph

Solar Irradiance Pressure Temperature Humidity

Diagnostics Data

Uptime Graph Battery Voltage Graph Panel Voltage Graph

Uptime Battery Voltage Panel Voltage

Graph of Weather Data

- Displays environmental data based on chosen weather data tab

- #### Weatherbox and Node Selection
- Drop down menu of options

- #### Weather Data Selection
- Changes above graph based on chosen tab

Graph of Diagnostics Data

- Displays diagnostic data



Evaluation of Design

- **Multiple node display**
 - **Comparison of different node data for specific box chosen**
- **Display of graphs**
 - **Environmental data will be displayed all in one page**



Modular Code

- **Efficient for creating similar components**
- **Easier implementation for additional/new modules**
- **Examples of benefits for dashboard:**
 - **Priority for data display**
 - **Display only desired graphs**
 - **Addition of a new page**
 - **Display graphs for a new set of parameters**

Problems Encountered



Problems Encountered

- **React Exercise:**
 - **Components (Resolved)**
 - **State changes immutable**
 - **Understanding how state changes work**
- **Time Management**
 - **Course workload**
 - **Midterms time in semester**
 - **Deadlines scheduled on same days**

Team's Progress





Team's Progress

Training
(Complete)

Design Documents
(Ongoing Progress)

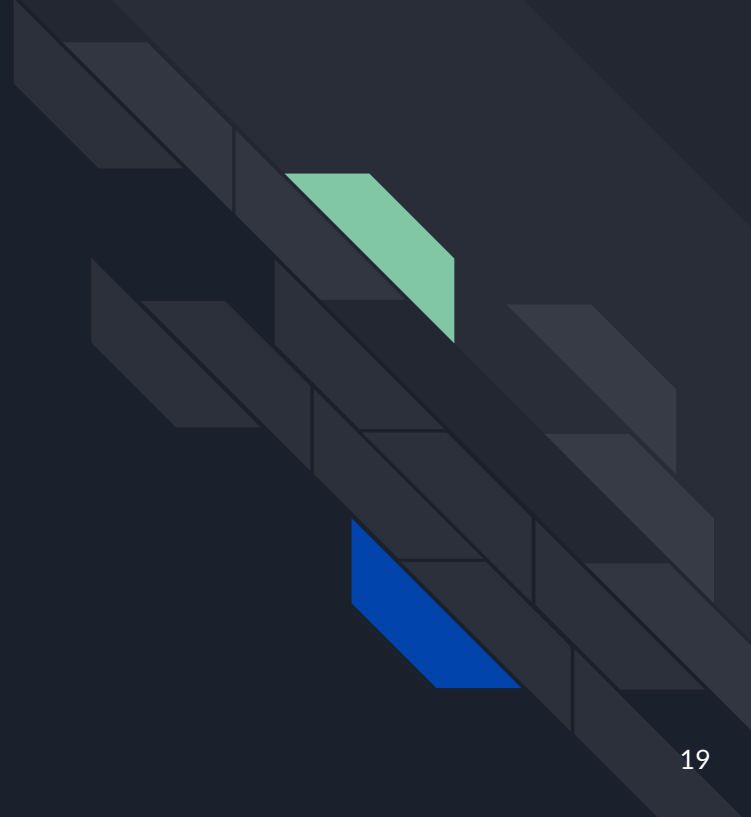
Dashboard Deployment and Development
(Starting)

Minimum Viable Product
(Ongoing Progress)



Questions?

Thank you!





Sources

SCEL Logo: <https://avatars0.githubusercontent.com/u/7014873?s=200&v=4>

Tic-Tac-Toe Picture by Gordon Li

SCEL App Picture by Gordon Li

Weatherboxes Page Mockup by Gordon Li

Weatherboxes Page Electronic Copy by Gordon Li