

## Introduction

Your task is to implement a basic version of the next-generation LEED Plaque design with tools and libraries that the company already uses. The task is estimated to take a total of **six hours** if you are familiar with the tools in question, and about **twelve hours** if not.

## Part I: Setup

You will build your solution off of the scaffolding already in place: a locally hosted web server (**server.rb**) and the file that will hold the plaque (**plaque.haml**).

The scaffolding uses several technologies that may be novel to you:

- **sinatra** - An extremely lightweight ruby web framework. Think of it as “Rails Extra Light”.
- **redis** - A key/value store used to get and set persistent values. You will not need to program anything using redis, but you will need to start a local instance to run the web server.
- **JSON** - Javascript object notation. Plays nicely with jquery’s **getJSON()** AJAX call.
- **haml** - An HTML- and ruby-derived markup template language that simplifies and beautifies development. You should write all of the markup in the project using haml. <http://haml.info/> is a resource you should read through.

Start the web server by running **ruby server.rb** from the command line.

Progressively solve the problems you encounter until you can visit **localhost:4567** and get a “Hello from plaque.haml” message, and you can GET **localhost:4567/update.json** and retrieve a JSON object with scores.

## Part II: Implementation

You will implement a plaque to display three building scores: water, energy, and human experience, being as faithful to the spirit of the IDEO “Vintage Portland Trailblazer logo” LEED plaque design as possible. The water and energy scores are out of 30, the human experience score out of 40.

Resources to shape your design are:

- A screenshot of my own efforts in an afternoon **abe\_work.png**. Ideally your solution would be more complete than this work.



- A screenshot from the original USGBC presentation showing IDEO's design, **original.png**. Note that you are only making a plaque with three categories, rather than the five displayed here.
- The original USGBC presentation on vimeo. It's a fun and compelling vision but watching it is not strictly necessary for this project: <http://vimeo.com/54947901> (start at 39:30).

Edit the **plaque.haml** file until it resembles IDEO's design as closely as possible. When the file is loaded, and every 5 seconds thereafter, call **update.json** and use the resulting energy, water, and human comfort scores to update the plaque. Can you make the updates look elegant?

Questions you may be asked:

- What graphics javascript library, if any, did you use to assist you in making the display? What other libraries did you consider and why didn't you select them?
- What was the most challenging part of the implementation?
- What are the limitations of your solution? Would it work on an iPad? An iPhone? If not, why not and what could be done to make it work?