Technical Documentation

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# Purpose

The website aims to collect useful tools and information for the planning and execution of strength training. The first version will focus on the planning and scheduling tools, which are primary to the usability of the product. Future versions will include additional information sections and accessory tools.

# Audience

The target audience is best defined as “individuals planning strength training programs,” with the initial focus being on “individuals using a 5/3/1 routine who need weight calculation and tracking.”

# Issues Addressed

Exercise routines, particularly weightlifting routines, can be designed using formulae which are cumbersome to implement on paper, while a single implementation in electronic form can allow for a fill-in-the-blank experience for potential users. The initial focus is a moderately difficult-to-manage routine which relies on calculating percentages of a base number for every single lift, then rounding to the nearest 5 pounds to account for the limitations of most commercial gym weight sets.

The difficulty of implementation is a reason for failure to remain consistent in an exercise routine, which is the root problem this website addresses via the pathway of automated calculation and display on desktop and mobile.

# Related Sites

Sites often focus on the delivery of maximal content, so the depth of relationship should be adjacency. For example, [Muscle and Strength](https://www.muscleandstrength.com/workout-routines) acts as a form of workout planning, in that plans are accessible to the user. Other sites focus on calculations, but they are always broadly targeted, like the popular [Black Iron Beast](https://blackironbeast.com/5/3/1/calculator) calculator, which has a vast amount of fields for potential plan calculations to maximize potential users. In doing so, each of these sites creates a barrier to entry that can be overcome with focus on a particular routine (or small set of routines), and content related to supporting that/those routine(s).

# Content

The site’s initial content will be entirely focused on facilitating the planning, calculation, and scheduling features.

# Accessibility Testing

**WAVE Results:**

Login Page: Skipped a heading level, missing form labels for inputs (non-issue as form is not used, only the inputs to power a simple JavaScript mock login).

Home Page: Missing first level heading.

Schedule Page: Empty headings (by design, as they display content which can be unset)

Planner Page: missing form labels (non-issue as form is not used, only the inputs to power a simple JavaScript local data set function).

Stopwatch Page: Heading level skipped.

Records Page: Heading level skipped.

**Webfx Readability:**

A green circle with numbers and a white background

Description automatically generated

**PageSpeed Insights (login page):**

Web:

A close-up of a number

Description automatically generated

Mobile:

A screenshot of a computer

Description automatically generated

# Usability Testing

Two usability tests were conducted by friends and family members. Each of them located an area for improvement:

First Test Implemented Feedback:

* Add near-background-color borders to certain elements to make them pop.
* Simplify the planner page input

Second Test Implemented Feedback:

* Add a guest login button since this isn’t a full-featured version yet.
* Use more yellow for active/highlighted things.

# Future

The project’s initial scope was beyond the feasibility of the available development time, so focus has shifted to the MVP. However, the project is still moving toward completion of the original design specifications, so code (particularly template) reusability is a primary objective during development. As such, source code oddities should be considered within the context of potential future use and flexibility within several potential web frameworks. The following alterations are planned in the following order:

* “Pure” HTML/JS -> Frontend Framework (React/Angular/GatsbyJS/SvelteKit)
* Mock Authentication -> Backend Authentication (firebase auth / oauth2)
* LocalStorage -> Backend Database (firestore / mongodb)