

HORIZON ELECTRIC PROJECT

Manpower Scheduling
Board

Horizon Electric

- Full service electrical contractor
- Worked on projects such as Nechako and the RHS building at UBCO



Current System

- Whiteboard and magnets!
- What's bad:
 - Too small for number of jobs, outlook and employees.
 - Crowded and hard to understand.
 - Limited outlook
 - No analytics or history
- What's good:
 - Simple
 - Easy to use
 - Cheap

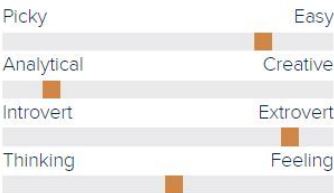
Gregory Thompson - Construction Manager



"Technology hates me."

Age: 50
Education: Bachelor's degree in Civil Engineering
Family: Married with two kids
Location: Kelowna, BC

Personality



Excellent Communicator	Problem Solver
Technologically-unsavvy	Worsening-Eyesight
Detail-Oriented	Resilient

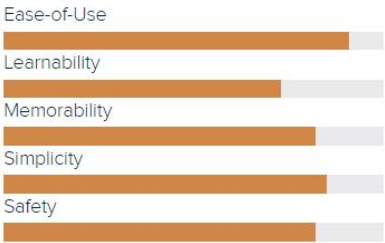
Goals

- Complete all projects within a set timeline and budget, while maintaining quality.
- Be able to view at a glance what employees are working at which jobs, see what jobs need more or less employees and assign them accordingly.
- Eliminate tedious, manual updates of counts in their current schedule board, saving time and improving efficiency
- Create better-informed future decisions by being able to view charts and graphs based on the history of jobs and employees.
- Enhance project coordination by identifying critical path activities and potential scheduling risks in advance.

Tasks and Responsibilities

- Oversee projects and schedules to ensure they are completed on time, within budget, and meet all specifications.
- Manage employees so they are all working to the best of their ability while maintaining their safety.
- Collaborate with his fellow-construction managers within the office to assign employees to jobs in a way that satisfies the manpower and experience-level requirements for the job.
- Communicate with architects, engineers, contractors, and other stakeholders to ensure the projects are done to specifications.

Values



Bio

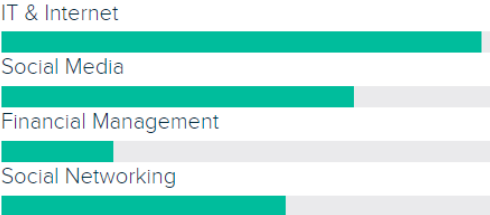
Gregory is a hard-working, busy manager, who tries to take great care of his employees while also ensuring all projects are done on time. He typically tries to stay away from technology, as he finds himself frequently getting frustrated by overly-complex systems and their hard-to-navigate UI or inability to tolerate his mistakes. Additionally, it can take him some time for him to learn new things, and he finds himself only using a few features of most apps. When Gregory is not at work, he spends his time on the couch watching shows and spending time with his family.

Age: 27
Family: Married
Education: Bachelor's degree in Computer Science
Location: Kelowna, BC
Character: The IT guy

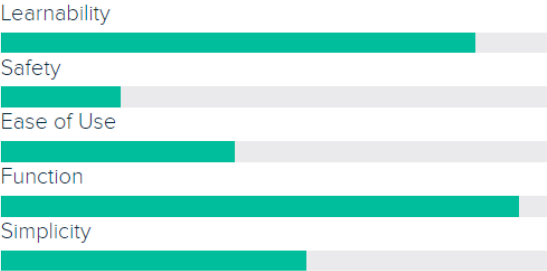
Bio

Alex spends most of his time carefully listening and helping clients fulfill their needs. He works independently as a contractor to help business with a variety of technical problems. He frequently finds himself frustrated when working on projects that have little documentation, as he finds it very hard to continue where people have left off. In his free time, he enjoys gardening and watching animals.

Technology



Motivation



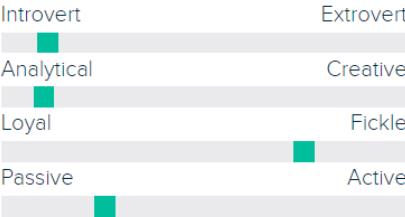
Major Responsibilities and Tasks

- Maintaining and troubleshooting the organization's IT infrastructure, including servers, networks, and software systems.
- Managing user accounts, permissions, and access controls.
- Ensuring data security and implementing backup and disaster recovery strategies.
- Providing technical support to end-users, addressing hardware and software issues.
- Researching and recommending new technologies and system upgrades to enhance efficiency and productivity.

Goals

- To have a functional way to access and restore databases and view diagnostic data.
- Upgrade the organization's network infrastructure to improve data transfer speeds and enhance overall system performance.
- To have accessible and readable documentation to understand how a system works so he can more efficiently and effectively perform maintenance.

Personality



"I can fix that"

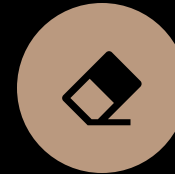
Key Requirements



Moving employees between jobs and between statuses



Adding, editing, and archiving employees



Adding, editing, and archiving jobs



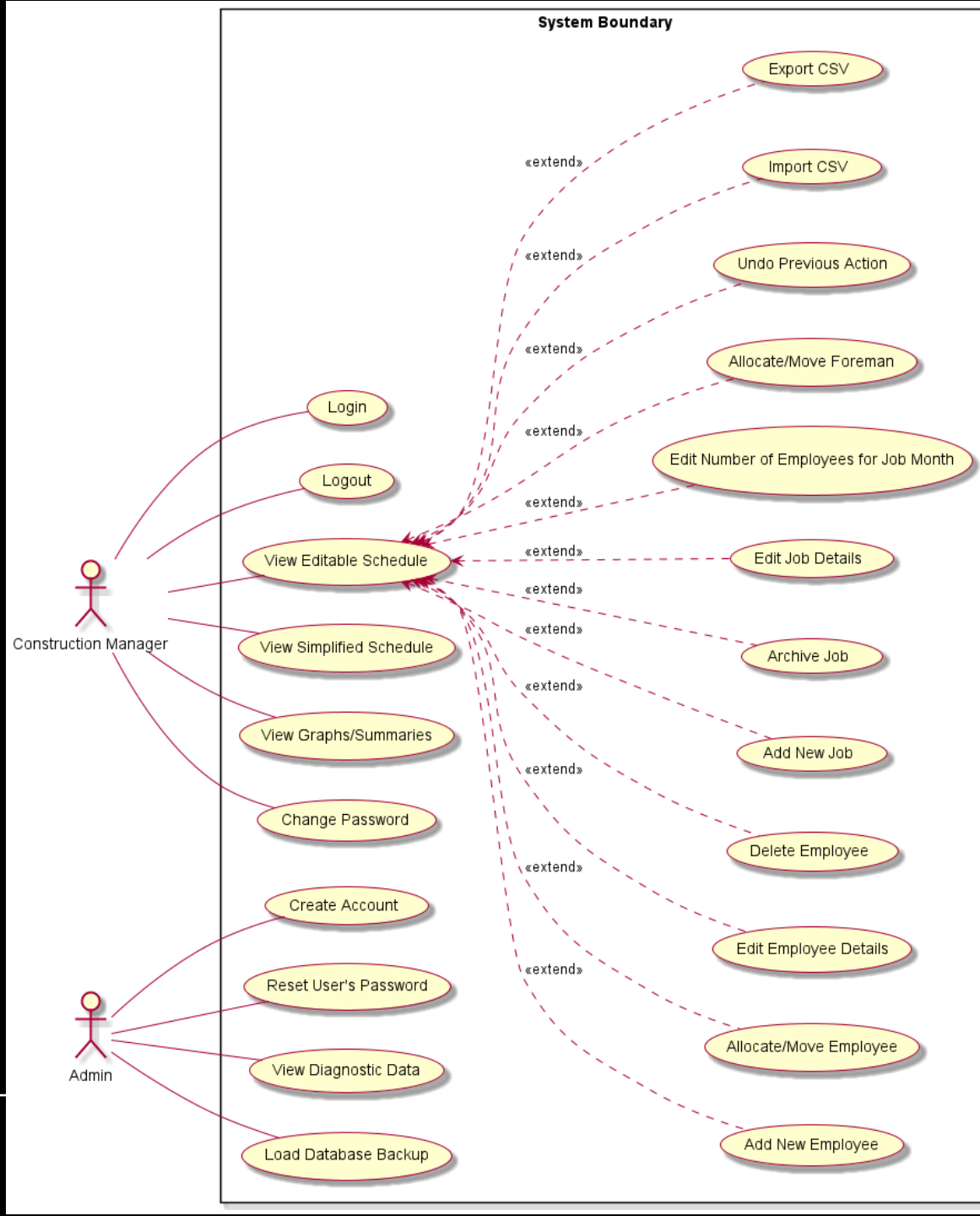
Allowing for editing of predicted number of assignments



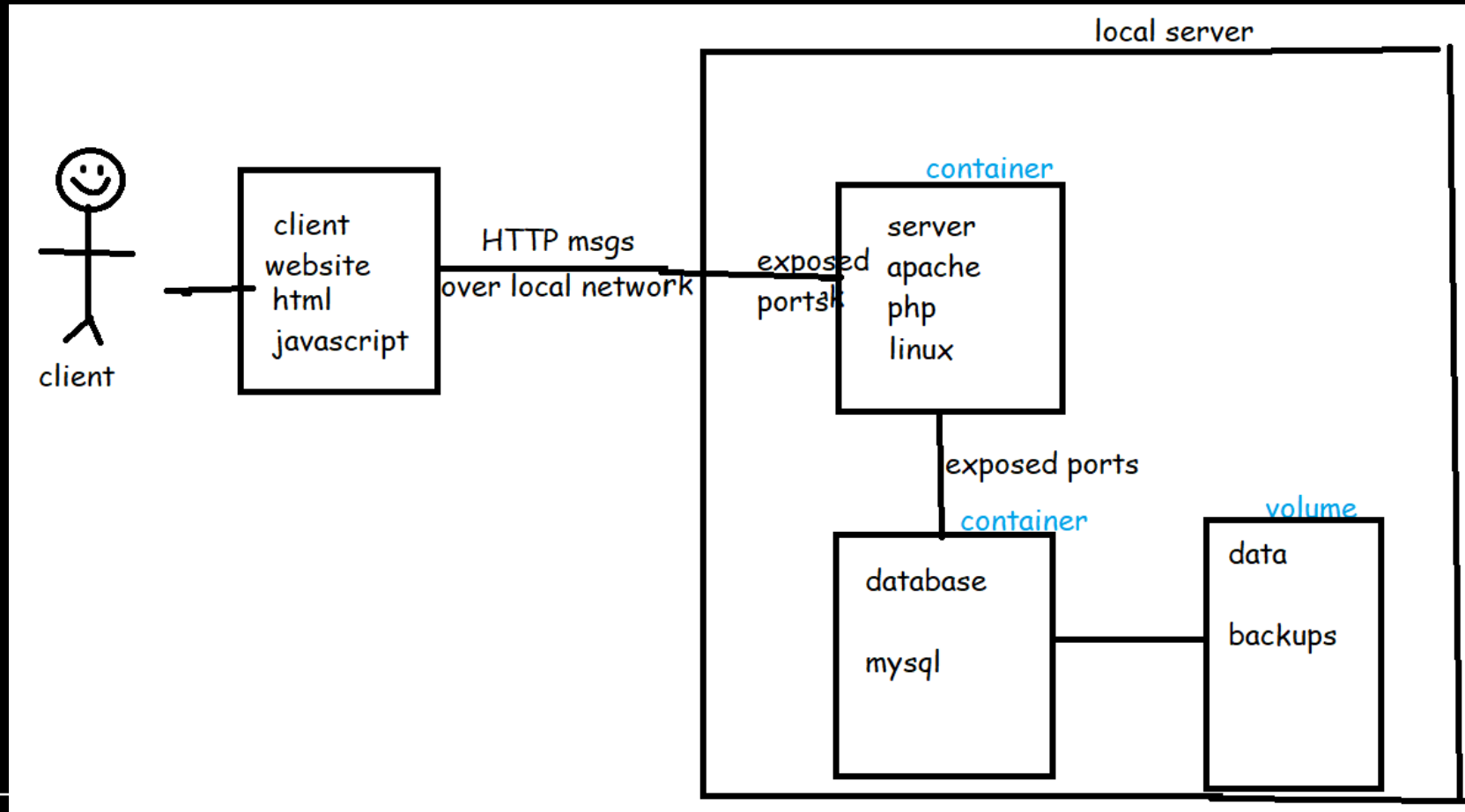
History of previous jobs and generated visual graphs



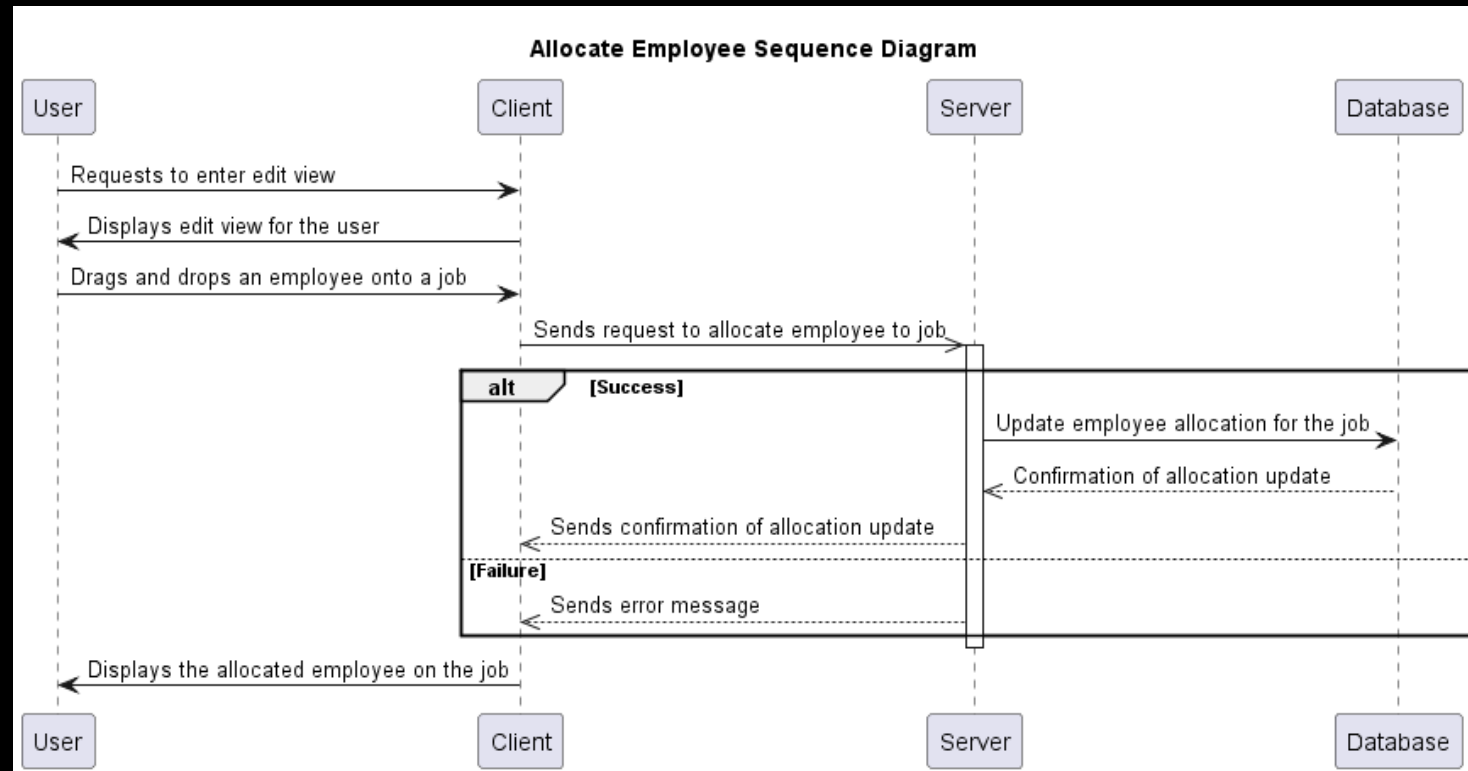
The UI must be intuitive and responsive for people who may not be the most familiar with technology



Architecture Diagram



Sequence Diagram



Proposed Tech Stack

- Frontend: HTML, CSS, JS
 - Backend: PHP
 - Database: MySQL
 - Testing: PHP Unit
 - CI/CD: Docker, Github Actions
 - Other frame works, such as JQuery
-

Testing Plan

- Unit testing
 - Integration testing
 - User testing
 - Regression testing
-

How is it going to look

Figma File



Conclusion and Q&A

- Please ask us questions, unless it's been more than 12.5 minutes.

