

JB Hunt - Intern Management Website

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Abstract

Goal: Implement a web application that assists in the management of interns at the internship program at JB Hunt.

- Akin to a LinkedIn website with less emphasis on social media components.

Primary purpose: To sell/promote interns to full time development teams.

Each intern will be provided with an editable account. Features such as::

- Profile picture
- Basic information
- Current team
- Assets in possession

Problem and Objective

Problem:

- A JB Hunt internship sessions can consist of **over 100 interns** during the summer and seems to be **growing**.
- All students come from various education levels, experience levels, locations etc. Typically these metrics would be managed through traditional or external means. (Powerpoint/Excel)
- Our project will help alleviate some of the external usage by creating a **centralized and easy-to-use** database. This will in turn streamline the internship management process.

Objective: Create a website that houses all important information about interns for full time employees which will not only help organize information but aid in the process of extending full-time offers

Background



Key Software/Tools

Azure DevOps: A suite of tools that support the software development process.

- **Primary use will be version control.**
- Free to use for up to 5 users.

Visual Studio Code: A popular IDE with debugging, auto-code completion and git functionality. A variety of plugins are available that complement or enhance its features.

Key Software/Tools (cont.)

Angular: a web application framework that uses typescript, HTML, and CSS.

- A typical angular app is built with custom “components.” These components are comprised of a template(HTML), class(typescript/), and styles(CSS).
- Rather than having several web pages per a usual website, an angular application builds upon a main component.
- User essentially views the same web page the entire time. The changes the user sees correspond to the swapping and manipulation of individual components.

Node.js: an open-source, cross-platform, back-end JavaScript runtime environment that runs on a JavaScript Engine and executes JavaScript code outside a web browser, which was designed to build scalable network applications.

Key Software/Tools (cont.)

PostgreSQL: an open-source object-relational database system. It supports both SQL and JSON querying. It is used as a primary database for many web applications.

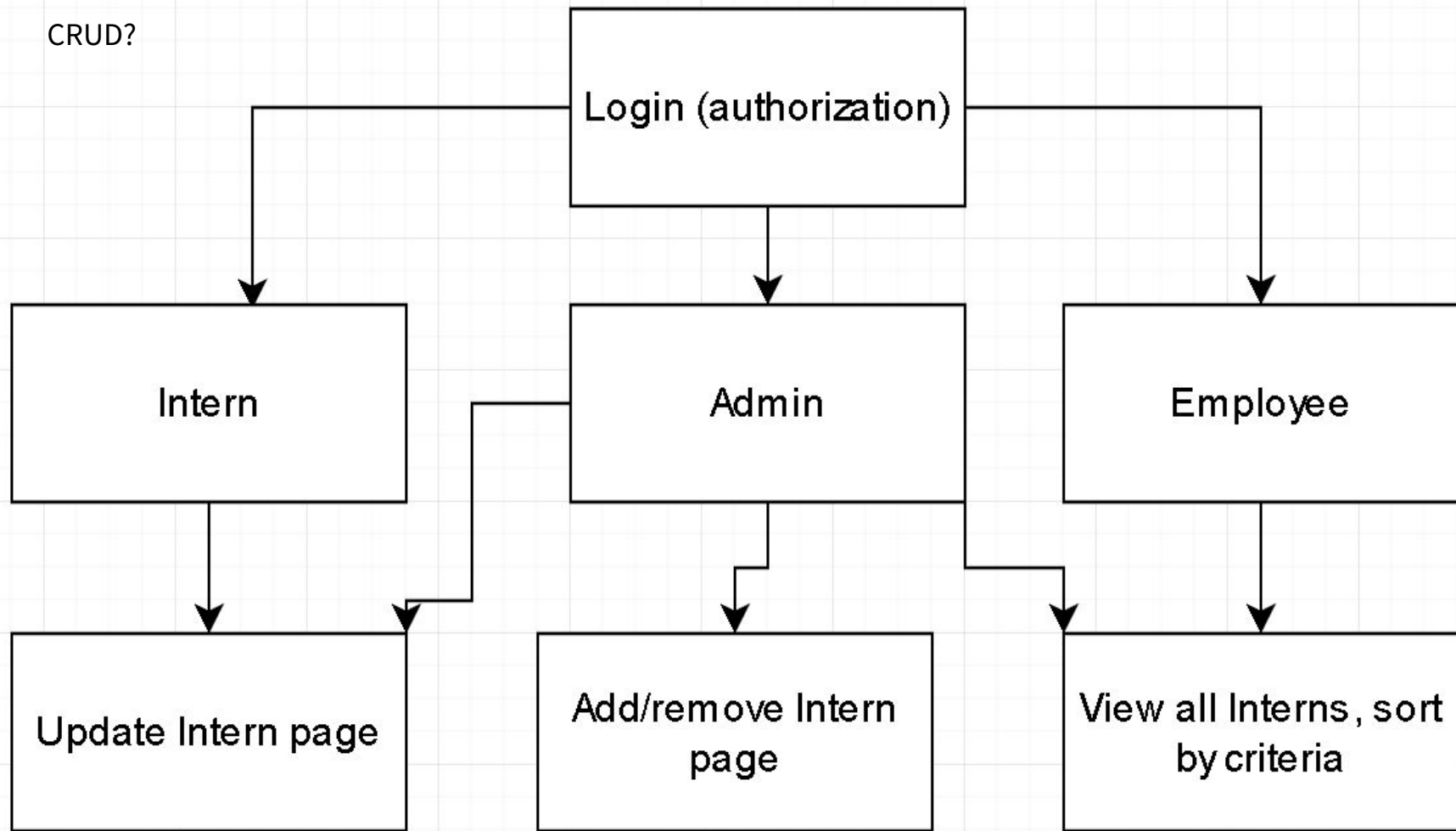
Design



Design Goals & High Level Architecture

- Login page (for the interns); different views based on authorization
- Profile page (interns basic info)
 - Profile picture
 - Current team
 - Assets in possession
- Administrator page (for admin/full-time employees)
 - Which will include a search bar with filters so that administrators/full-time employees can easily find an intern based on their interests, skills, teams etc.

CRUD?



Angular + Node + Postgre

Angular



Node.js Express



bezkoder.com



Design Goals & High Level Architecture Cont..

To do this, we decided to use Angular as the frontend as stated before, and then have Node.js as our backend. With Node.js, we are able to use a web framework called Express that supports things such as routing, middleware, and view systems. We also plan to use Sequelize as a promise-based Node.js Object-Relational Mapping (ORM) that supports the dialects for PostgreSQL for the database side.

Tasks

1. **Research/Organizing** - Understand & gain knowledge on the applications being used to complete the project, and assign tasks to each member (*Benjamin & Cayla- front end; Jessi & William - backend*)
2. **Design website** - Each member outlines/designs their specific task and then as a group comes together to decide what works best or what to change.
3. **Implementation of website** - Each member completes their portion of the website (*front end/backend components*). Azure DevOps will be utilized to ensure version control.
4. **Test website** - Make sure all functionalities of the website are up to par via creating test profiles to verify usability
5. **Document results** - Report what went well and gather feedback via survey from users after using the application

Additional Goals

- JWT authentication - HTTP requests paired w/ JWT
- File upload/download - resumes
- Image upload - profile pictures, etc.
- Cloud hosting
- Containers