

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
- Resume

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.)

MongoDB: is a document database with scalability and flexibility which is essential to the querying process. It is an open-source NoSQL database management program. It provides drivers for 10+ languages. It stores data in flexible, JSON-like documents, which means fields can vary from document to document and data structure can be changed over time.

Design



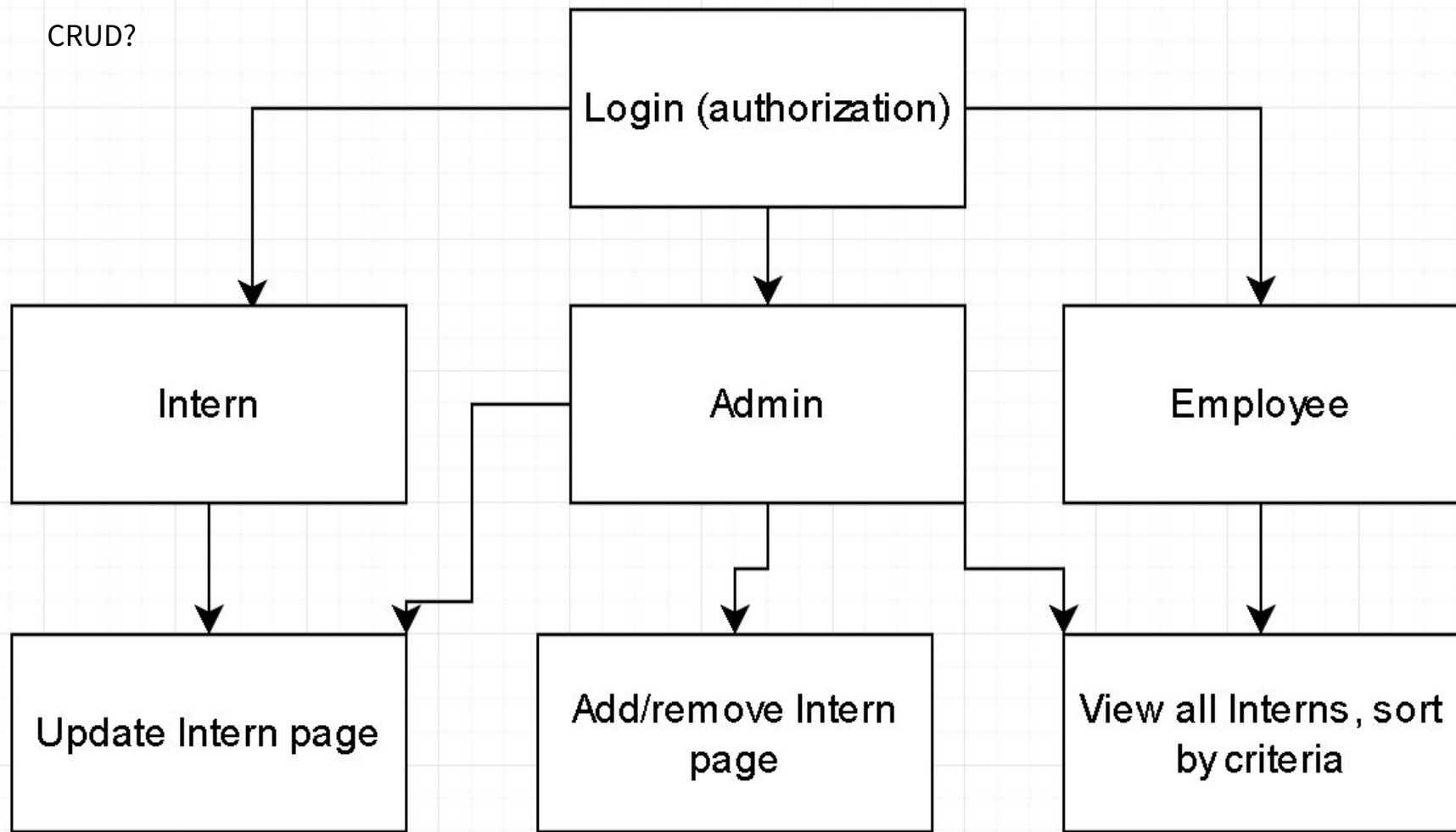
Design & Architecture

- Login page [can login as intern or full time employee, i.e. moderator]
- Profile page
 - Profile picture
 - Current team/previous team
 - Hometown
 - Hobbies
 - School
 - Date joined & date leaving
 - Resume

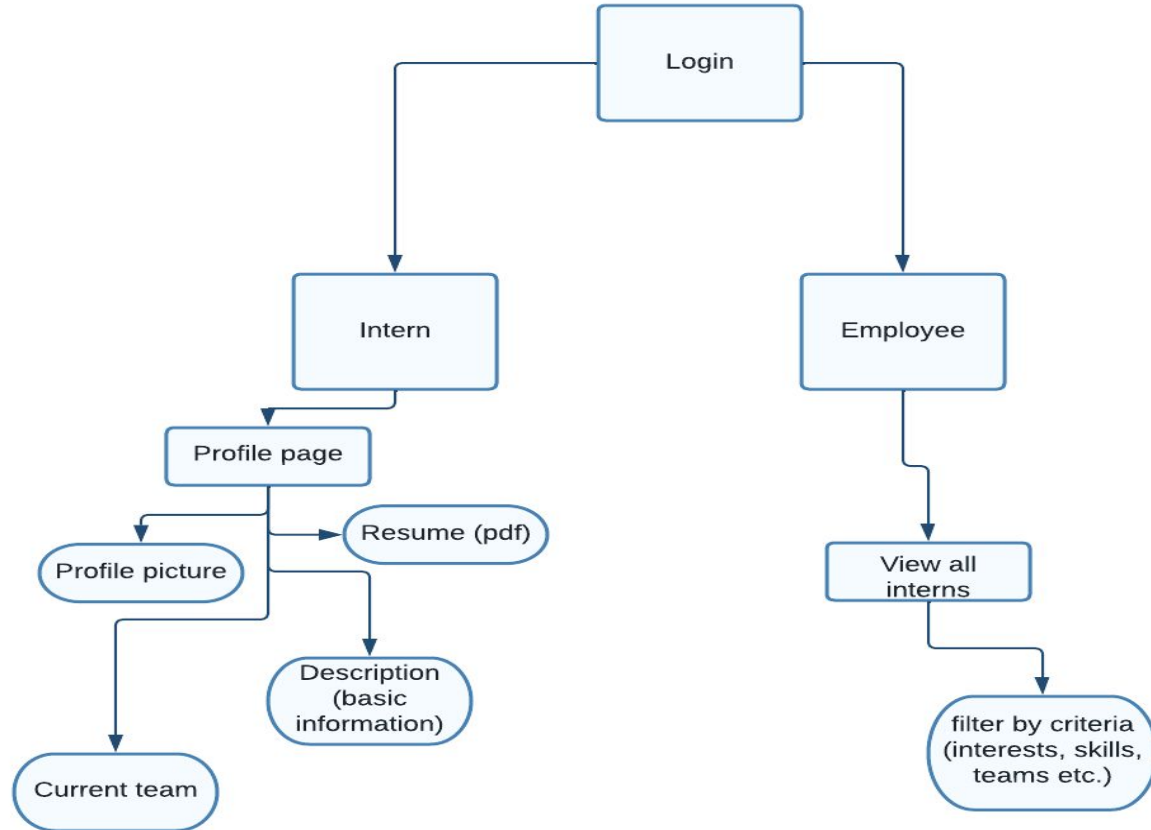
Design & Architecture

- Search Bar for filtering users
 - A live search bar which populates as the user types
- Add Intern
 - Where the intern can add the necessary information that is included in the profile page
 - Utilized a dynamic form so the user can add multiple teams/hobbies
- Edit Intern
 - The intern can edit any information. The form is automatically populated with their information and they can edit to what they would like

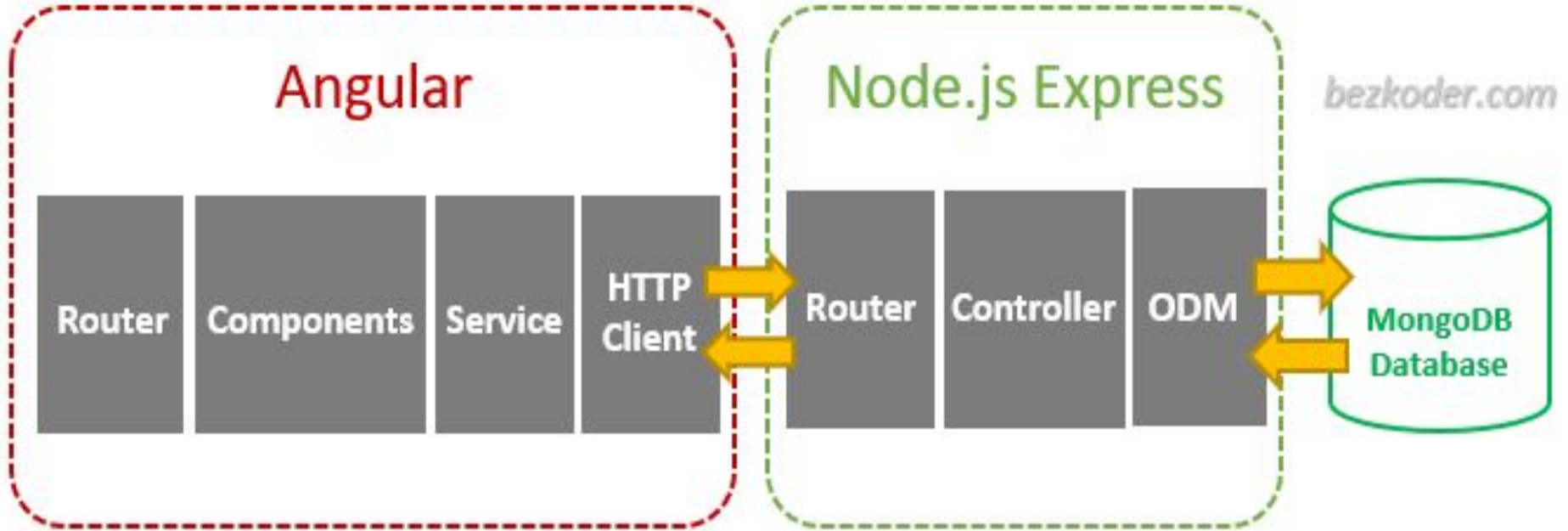
CRUD?



Final App Schema



Angular + Node + MongoDB



Risks/Risks Reduction

- Security breach
 - How to minimize?
- Authentication
 - How to minimize? Not letting the user log in if for example they type an incorrect input for something like a password.
- Authorization
 - How to minimize? Give roles to the interns and the admins/employees in the company. For example, for interns, they would have a user role which will allow them to see their own profile page with their information only. While the admins/employees would have a moderator role and be able to see the list of each intern and see their status, what teams they are in, see their profile page

Areas of Improvement

- Password recovery
- Toast messages (notifications) at appropriate places
- Implement admin authority in order to delete/add user accounts
- Cloud hosting (*stretch goal*)
- Containers (*stretch goal*)