

Family Tree Project Background and Description

Story

While attending a family reunion, I was given a printout of the family tree book. After having a conversation with the committee member in charge of managing the printout, I learned that word-press was used to manually update it. Software Development is not only an area where I'm seeking employment, but also been a spare-time activity. After the committee members asked for volunteers to help, I have decided to join the committee to write an ASP.NET Core with TypeScript implemented React UI application given an ability to digitize the printout and editing process followed by potentially making it interactive where the website can run on multiple computers.

Description

High-Level Picture

The current goal for this web application is to enable families to explore their family history, and report marriages, children, and deceased members.

.NET 7 Backend

Given a PDF file of the updated family tree, I implemented a .NET 7 backend to express the sections into a "Tree Node" represented in terms of graph theory. Then each node is stored in MongoDB. My MongoDB consists of collections partitioned by family tree name. Each collection contains serialized tree nodes as documents. In my DAO, I have implemented the graph theory abstraction of a Tree as my data structure that organizes each node when deserialized into memory. In my Service, I have the following features returns number of generations (tested), returns number of families (tested), a user can upload a template as a PDF to append the family tree (somewhat tested), a user can report deceased (not-tested), a user can report children (not-tested), and finally a user can report a marriage (somewhat-tested). Then I implemented an API enabling request-response communication between .NET 7 and my React UI for the features I have tested and somewhat tested.

React UI

While still looking to look for a spot to be a software developer, I noticed that React UI experience is either a prerequisite or preferred prior to pursuing the opportunity. With my Clifton-Strengths of adaptability, being a learner, includer, and achiever, and consistency, I believe that getting exposure to React when implementing the front-end of this project will help me prepare for the software engineering industry. So far, I have a basic understanding of TSX, components, providers, context, styling, and event-handling of HTML elements. On page 1 of my UI, a user can enter a family name in the text box and the component stores it as context that will be accessible throughout UI applying the concept behind providers. On page 2, I have the family name displayed followed by the number of generations by that family name and number of families.

Next Steps

In my UI, I'm trying to figure out how I should layout the contents of the family into HTML element containers and open to additional suggestions.

Mentor needed.

I'm looking for someone who has React UI experience, or similar but not limited to Angular and Vue that would be willing to suggest some ideas on how I should design my website and learn from in terms of front-end development. I'm looking forward to meeting you.

Contact information

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The project can be on viewable on [GitHub](#).

I invite you to connect with me on [LinkedIn](#).