Final Project Report
COMP 4610 – GUI 1
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Project Name – WIM (**W**hat **I** **M**ake)

The Problem

Most students graduating college will soon land a real-world, full-time job in their field of choice right out of college (at least they anticipate this). Interview after interview, they finally get that glorious offer, and their offered salary is more money than they've ever seen in their life. Unless they're a business student or they have previous experience with this, it's hard to know exactly what to do with that money. On top of that, that salary isn't the exact amount of money that goes into your account due to taxes, benefits, and retirement planning. So, how much do they actually make, and how much money can they actually spend or save on the things they really want in life?

Why Solve

WIM (What I Make) is a single-page web application that seeks to solve that, or make the problem less stressful. WIM does not promise to replace a financial advisor or give the exact, 100% accurate amount of money you will receive, but it will be a quick tool to get a broad understanding of your financial status. Students who have a job lined up after they graduate, like me, aren't really sure how much of that offered salary they can spend on the things they want to. The transition from being cared for by your parents to being self-sustaining is scary and uncertain, but WIM aims to put your financial standing into perspective.

Alternative approaches

This problem can be solved in whole by meeting with a financial advisor. Since this approach takes a lot of time and usually money, it is undesirable in most cases that someone that wants a quick glimpse at their financial standing wouldn't want to go through that. Alternatively, there are other calculators online, but they fail to represent the data in a user-readable fashion. WIM asks for as little personal information as possible and gives you all the information you are looking for, whether it be numerical data in tabular form, or represented visually.

Tech Architecture

Since it is a single page app, I used AngularJS as the framework. Within angular, I also used Bootstrap to make arranging content easier, and JQuery to help with the backend logic of the application. Alternatively, I could have manually written custom styles for every single element and table I wanted to format, but it would have been a waste of time if the resources I need are already out there. I also used D3 to display the Sankey and Pie Chart diagrams. This was an alternative to using a graph API, but since I didn't want to deal with service accounts and internet connectivity, I decided to render the graphs natively. This makes the page load faster, and it is more reliable than relying on another application.

Citing Sources

All code, other than Bootstrap, JQuery, D3, and AngularJS libraries is written entirely by me, with two exceptions. The two graphs (Sankey and pie chart) were created by referencing two sources:
Sankey: https://bl.ocks.org/mbostock/ca9a0bb7ba204d12974bca90acc507c0
Pie chart: https://github.com/zeroviscosity/d3-js-step-by-step/blob/master/step-3-adding-a-legend.html
These were great resources for generating the graphs. Since I only had 2 weeks to make this application, I figured this was the best option with respect to time. Each was modified uniquely so that it tailors to this application's purpose.