

Testing Full Stack Web Development in Vue.js

By: Nate Meyer



Introduction

The NKC Family Foundation (NKCF) requested a web application to be developed for them that would replace their current document management system. The requested application needed to be secure and provide ease of use for all those who are using this application.

Why Test?

Creating tests for applications is important because it help to find issues in the code that were not foreseen and help to figure out why parts of the code are not functioning the way that the programmer intended. The tests that I created for this application helped to determine that the application is displaying the correct information and in the right locations.

Objectives

- Make sure everything is rendering correctly.
- Navigation bar redirects to the correct page every time.
- The navigation header stays in the same location across the unsecure layer of the application.
- The correct amount of information is being displayed on each page.

Tests

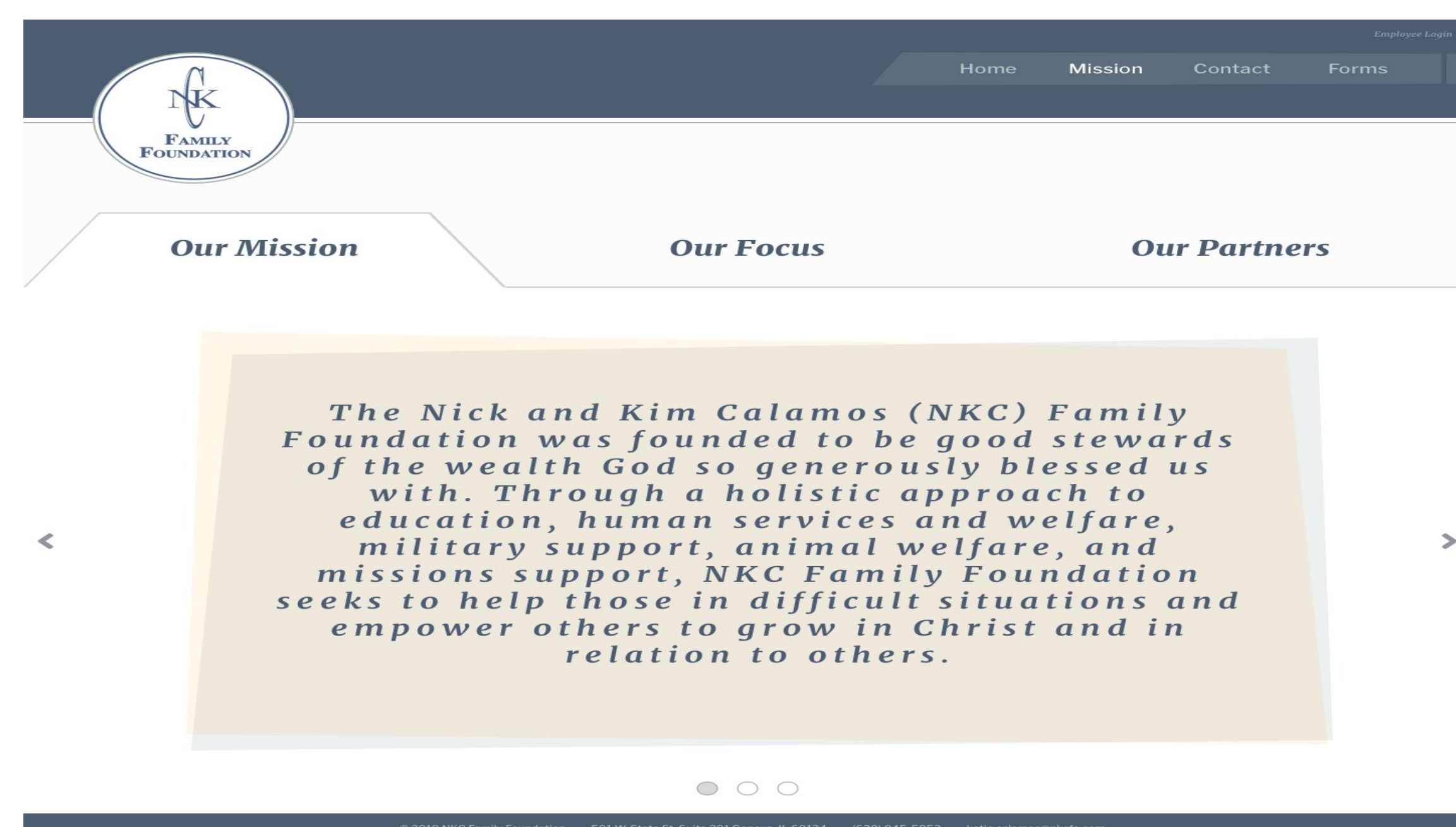
For testing the unsecured layer, I implemented tests that verified that the correct information is associated with the correct page. Information on the home page would not necessarily be on the contact page or a form that should not be on the mission page. Overall there were about 70 tests for the unsecured pages for the application. Below is an image of the home page.

Examples of tests that were made for the home page consist of:

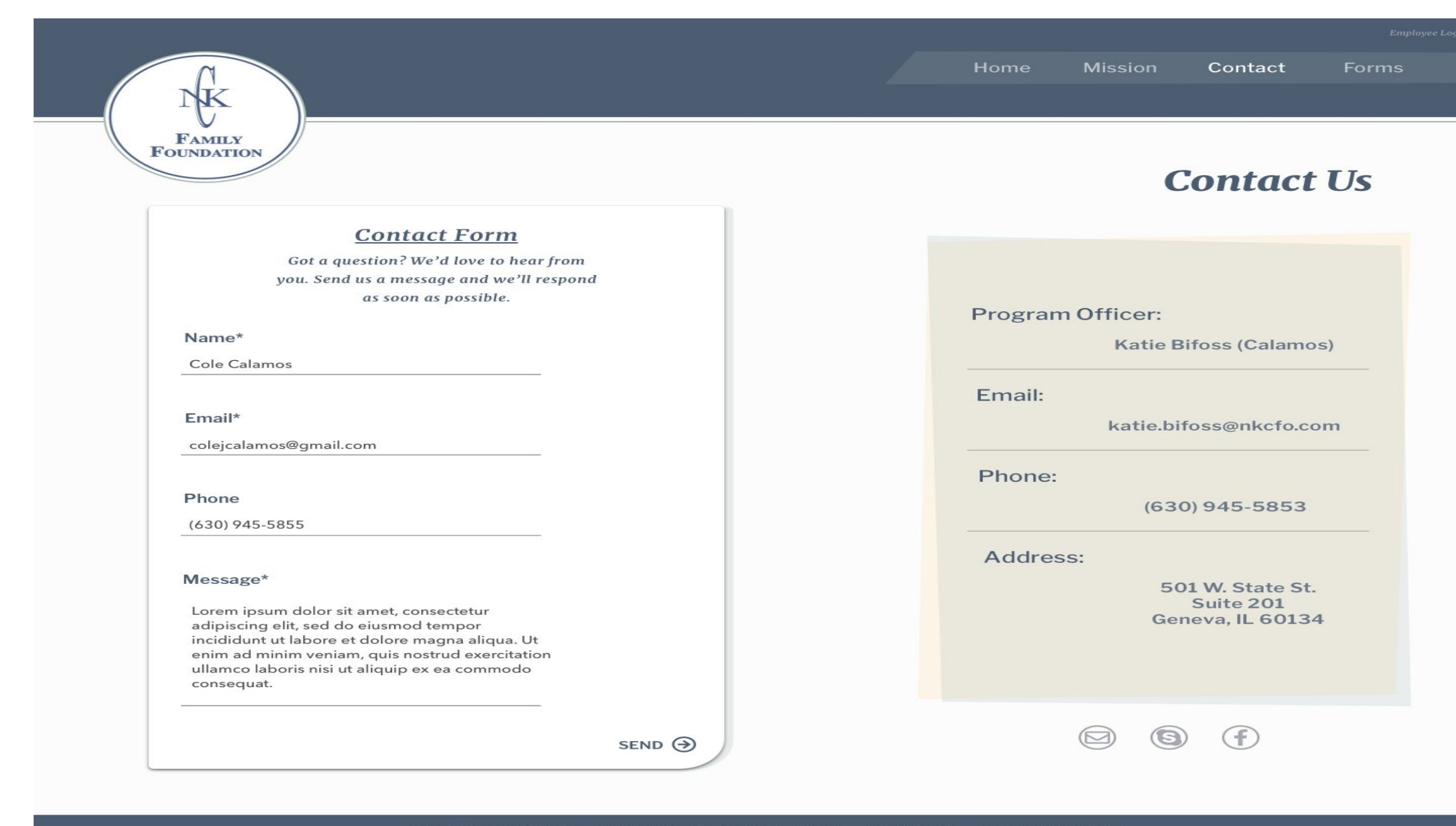
- NKC Family Foundation being found on the page.
- The established year displaying on the page.
- The image of the foundation Logo displaying.



The missions page had multiple tests that needed to be applied to each of the tabs. Each tab needed to verify whether it was the current tab when clicked. Each tab also had to render the other tabs and render only three total tabs.

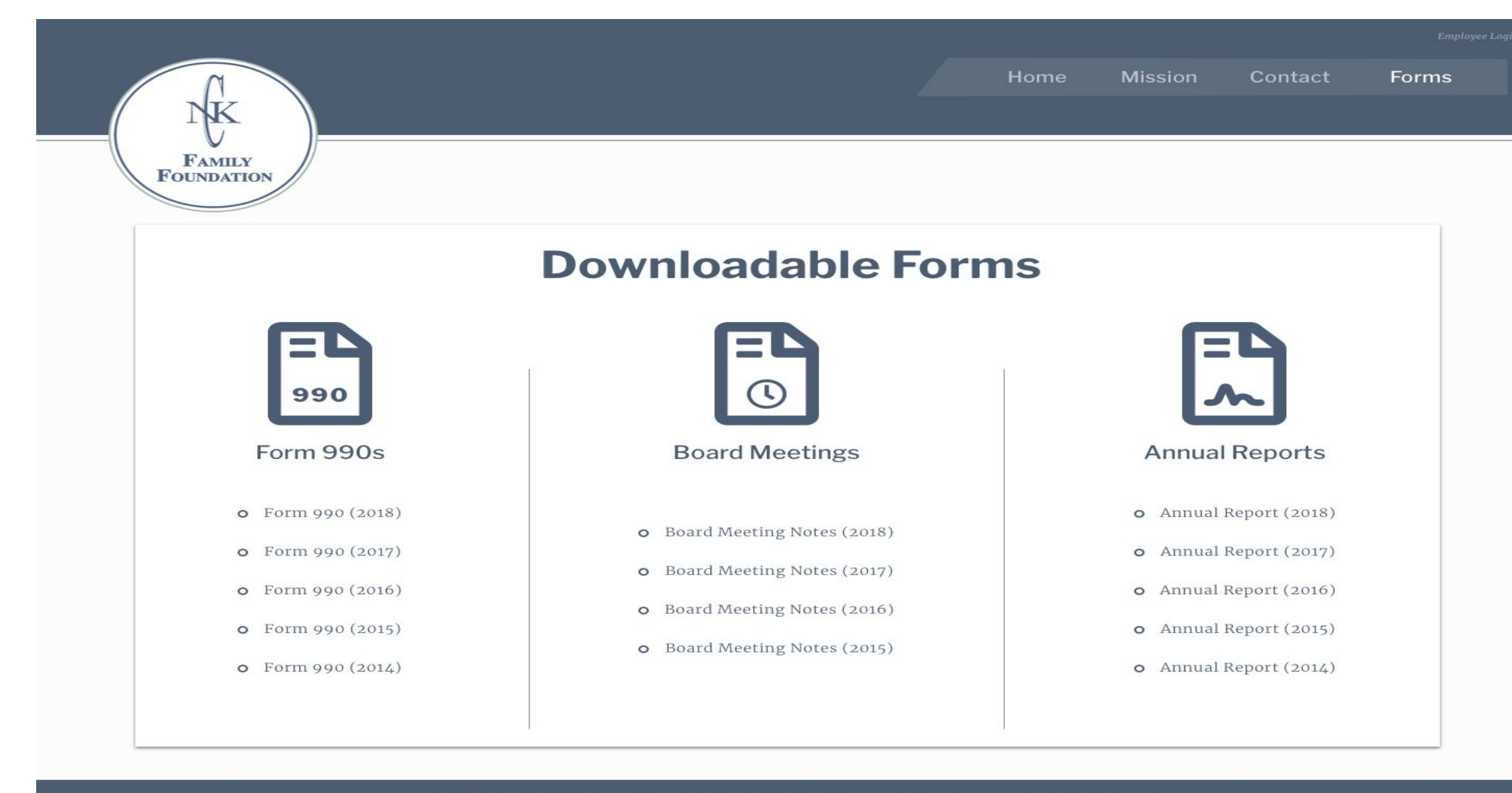


The contact page needed the fields to contain the correct information and have the correct identifiers so when someone wants to contact the foundation the correct name of the individual is included into a message and the correct information is attached so that the foundation knows who is trying to contact them and how the foundation can respond to them..



For the Forms page, tests would check for:

- Titles displaying correct information.
- Only three images are rendering for the three columns.
- Correct document is under the correct column.



Things I Learned

This project taught me about a new programming application for web development. It showed me how modern applications use vue and how they apply these components.. I learned how tests help in developing products. Tests help to determine that the code for the application is running the way it is supposed to and help to find unforeseen bugs. The structure of tests is another thing I learned and how they can be applied to projects. Learning to make tests is something that can be applied in future careers and projects. Operating systems can determine whether a project can be successful or not work at all. This showed me that there can be an underlying issue and that not all applications can run on all operating systems.

Challenges I Faced

- Operating systems can limit the amount of progress that can be done.
- Learning something and then applying it in the project can be tricky and take longer than expected.

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