

# CS373 Group 22 - Foster Hope

## Phase 1 Technical Report

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### Purpose

The purpose of this project is to bring awareness about Foster Care within Texas and provide various resources to those that are in the system. Children in foster care can be especially vulnerable, so supporting them by providing them and their caregivers with useful information is very important. To do this, the project will provide information about the Texas counties, Foster Care organizations and Foster Care resources within Texas.

### User Stories

#### General Information

*Add description for foster hope on splash page*

This is an important feature since the splash page is the first page that users will see. It will also help users understand what the website is about. As a result, we addressed this user story by adding the description to the model page and adding more styling to enhance the visual appeal.

*Add models on organization page*

We added our model's instances onto the organization page in the card format. This way, users can get the information needed about the organizations supporting foster care. However, we hard-coded the values for this phase and will programmatically populate the instances in the next phase.

#### Visuals

*Add images for about and splash page*

We addressed this user story by adding images of our tools to the about page and other images as a carousel to the splash page, hoping to increase the visual appeal.

*Include a photo and bio for each member of your team in the "About" page*

*Being a customer of your website, it would be helpful to be able to put faces to names*

At the time of receiving this user story, we did not have any images on our splash page or on the about page so we can see how it can be helpful to users as images can provide a more vibrant experience when looking at the website.

*Use Bootstrap, Tailwind, or another framework*

We addressed this user story by using React-Bootstrap, which provides pre-made React components to simplify the creation of user interfaces. We used many components from this framework, such as rows, containers, columns, carousels, and a navbar.

## Tools

AWS Amplify: Used for hosting our website

GitLab: Allowed us to store files needed for the full-stack website in a repository. We also used the issues tracker to plan our project and divide up work.

Postman: Used to plan and document our API

React.js and Next.js: Used for our front end of the website and create an interactive UI

React-Bootstrap: Has design templates for our website's UI

## Frontend Architecture

Our frontend is a Next.js project and is hosted by AWS Amplify. Our current project has the landing page, an about page and 3 model pages where each model page has instance pages.

To install the project: Download node.js and then clone our repository. Then in the terminal:

1. Move into the front-end directory
2. Run **npm install** to install the needed packages
3. Then to run the application on a local server, run **npm run dev**

## File System

Each of the main pages (about and model pages) have their own folder within src/app:

*cs373-group-22/front-end/src/app/about*  
*cs373-group-22/front-end/src/app/counties*  
*cs373-group-22/front-end/src/app/organizations*  
*cs373-group-22/front-end/src/app/resources*

Currently in each model page, there are three instance pages under the instances folder.

*cs373-group-22/front-end/src/app/[model]/instances*

Our components for the splash page, such as the Navigation Bar, will be in the components folder.

*cs373-group-22/front-end/src/app/components*

Components for other pages will be in their respective folders. For example, any components used in the about page will have be in *cs373-group-22/front-end/src/app/about/components*.

Photos are under the public/images folder.

*cs373-group-22/front-end/public/images*

We also have a *page.module.css* to style our pages uniformly and a *globals.css*. It is important to note that we often utilize the *.main* and *.description* styles located within *page.module.css*.

## Models

The models we will use for this project are going to be counties, organizations and resources. The attributes for counties will be the name of the county, population, the number of agencies, number of foster children and the number of foster homes.

For organizations, the attributes are their name, location, the type of organization, a review of the organization and the hours of operation.

For resources, the attributes are the name of the resource, location, type of resource, phone number and the website.

## API Documentation

Our documentation can be found on Postman [here](#). This will have our endpoints in order to GET information on the number of foster homes, number of foster kids, the organization reviews, and events. This information is returned with each instance requested through the API. Using the API, we can request all instances of a certain model or a specific instance of a certain model.

## Hosting

We are using AWS Amplify to host our website at [www.foster-hope.com](http://www.foster-hope.com). Our site is deployed from the “main” branch of our repository so that every time that we push to that branch, Amplify builds and deploys the updated version.

## Challenges

### AWS Amplify

We had some problems while using AWS Amplify as it gave us some errors but we were able to fix the main issue by fixing our imports. When we want to import a component, if we need to import more than one, we had to put curly braces around it. We also had issues with our `RootLayout` folder having incorrect fields, which hid many errors and took a lot of time to diagnose and fix, since the error was only being shown by AWS Amplify. It is also important to note that we had to use a custom AWS image to host AWS Amplify with Next.js (Amazon Linux 2023).

### Next.Js

Rather than using React.js, we wanted to try out Next.js. Since most of us are not familiar with next.js, it was a challenge to figure out how it worked and how Next.js would interact with the

other tools we were using. Using the documentation helped us considerably, since they had a lot of examples with code that we could directly reference and learn from.

## Project Plan

We were having trouble in the beginning when trying to figure out what group of people we wanted our site to be about. We came up with several ideas at first and looked to see if we could find enough information for each topic. In the end, we decided on providing information about foster care and to help foster kids.