CS373 Phase 1 Technical Report

the audience comprises other software developers, as opposed to users
format the report clearly, attractively, and consistently, using good sections, multiple pages,
good headers, figures, and grammar.Export as a PDF

Motivation

We believe that technology plays a key role in healthcare. There is a clear need for better, more accessible information for those who suffer from STDs in the state of California, one of the states with the highest STD rates in the country. Therefore, STDHelp intends to use various data sources in order to create a platform that allows those who are struggling to get the information and help they need.

User stories

#34 - Description of STDs - !19
#35 - give information on the price/cost of treatments - !21 - Closed by manually adding insurance information but is also impossible for the future:
- Many medical clinics don't even list their accepted insurances on their websites.
- The data from the API does not provide insurance information.
- Prices for medical treatment wildly vary even between insurances
- Medical centers don't comprehensively list treatments on websites nor is it API information.

#36 - testimonies - !22 - Added samples to home screen
#37 - attribute "zip code" - !14 - Condensed into address
#38 - Implement filtering by gender - !12 - Added with first information

Models

Model 1: Counties
This model shows the statistics of the number of cases as well as the rates of different types of STDs, such as Primary and Secondary Syphilis, Gonorrhea, Chlamydia, Total Early Syphilis and more in the year 2021. The model page shows a smaller selection of these statistics, as well as the county seat and the population of the county, with each card describing a county, and each card has a button that leads to the instance pages for the county. The instance pages contained the aforementioned information as well as a map from Google Maps embedded as well as the flag of that particular county. Below that are cards that should link to instances of healthcare locations that are available in that county from the locator model, but for this phase it is just linking to the current 3 instances of locations that are available. The cards in the model page will later be sortable in the number of cases for each STD in the preview, as well as the population of each county in ascending or descending order as well as the default alphabetical order.

Model 2: Prevalence

Model two displays the prevalence of three different types of STDs in the state of California. The dataset we decided to use contained information on Chlamydia, Gonorrhea, and Syphilis. On the model page the year, gender the data is based on, number of cases and rate are displayed. We decided to differentiate male and female entries for the year because that is how the dataset is split and one of the user stories asked for entries to be sortable by gender. Upon clicking the button on an instance card the instance page opens up to an instance page. Here the population for that gender in California is displayed. The total cases, rate of cases, and percent of patients tested for Chlamydia, Gonorrhea, or Syphilis is displayed. There is also a link which navigates to the CDC's page on each of said STDs. Underneath that a generic infographic is displayed and at the bottom of the page related content is shown with a link to navigate to said pages.

Model 3: Locator

Model that uses https://locator.hiv.gov/map to find locations and information about the locator. Currently pending access to API because they have not responded to our email request. The main model page has a grid of cards, each with an image and several fields describing the locator. These cards can be clicked on to navigate to an instance page which contains additional information. The model card grid currently holds attributes to: Name of location, address, phone number, website, and Services offered. These are planned to be made filterable at a later date. Information for the cards are currently stored in the Locator file, but the information once the instance is clicked on is stored in the JSON file. The information of the cards is planned on being transferred to the JSON file as well at a later date, once we can scrape it. The instances additionally contain an about section, as well as what insurance providers are accepted.

Tools

Web framework - React
CSS framework - React-bootstrap
DNS - Namecheap
Hosting - AWS Amplify
VCS - Gitlab
CI/CD - Gitlab Pipelines

Hosting

Hosted on stdhelp.info
Domain bought through Namecheap and the website is hosted on AWS Amplify.

RESTful API

The current API concept has two types of GETs: explicit and categorical. The explicit GET takes a model (category) and a unique identifier (instance). If the instance given exists, a JSON object is sent with only the information from that specific instance included. At the moment, the JSON object only includes base information from the instance, meaning no media, links to instances, or other special information is included. The Postman link has the schema documented clearly. Any bad input will result in a 404.

The categorical GET takes no input but gives a full list of ALL instance information for a given model. It is structured as an array of instance objects specific to the model.