Campus Catalog

Phase 1 Technical Report

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I. Motivation

University is not just a place to learn. It is a place where you will find a community filled with new people and experiences. It is a place where you will make friends for life and explore your own potentials. It is a place where you will discover new opportunities and reach new heights. It is a place where you start a new chapter of life. However, a question remains: how do you decide which university to attend?

We created campuscatalog.me to help people make more educated university decisions. 43.2 million students in the U.S are in debt by an average of $39,351 each and we would like to help. By providing a wide range of helpful information, our website will help students make one of the most important decisions in their life. We want to help you find the best university option for the price you deem acceptable by providing information regarding the university, cost of living on or off-campus, and other amenities available.

II. User Stories

More information on Animal Friendly Filter

"Hello, I am a user looking for an animal-friendly apartment, but my pet is a large dog whose breed is not frequently allowed in apartments. In the Animal Friendly filter, I'd like more information on which animals are allowed at a particular apartment. This will help prevent misunderstandings when looking into animal-friendly apartments, and it will help me narrow my search more effectively."

Search Filter for Apartments with Accessible Amenities

"Hi development team, I am a university student who have some friends with disabilities. I would like a feature that would allow me to filter for apartments that are wheelchair or handicapped accessible. This will be particularly useful for those with limited mobility."

Search feature for Amenities for Apartments

"Hi! I'm a user who would like to know about any amenities that an apartment offers. These include free electricity, free wifi, free water, gyms, pool, elevator, roof terrace, etc. While price helps me choose an apartment, allowing me to search for common amenities will make the apartment search a lot easier."

Safety rating attribute for each student apartment

"Hello, I'm a user who heavily prioritizes the how safe the area around an apartment is when choosing where to live, and in order to figure this out, I typically have to search a lot on Google for crime statistics and safety ratings of neighborhoods. I was wondering if you could add some more information to the website regarding how safe the area around each student apartment is to ease this process. For example, maybe you could add a general safety rating for each apartment based on this [website](#) which has a map showing the safety of specific areas in cities like Austin."

Affiliated Safety Resources for University Students

"Hello, I am a user who enjoys going out for entertainment until late in the night. However, I do not have a car, and I am worried about my safety if I have no ride home. Is there a way to check if a certain university has any affiliated safety resources to help me get back home? Some examples of this includes UT Austin's Sure Walk system and UT Night Rides."

III. RESTful API

You can find our postman API here:

https://documenter.getpostman.com/view/17627995/UUy3A7Rd

IV. Models

University

- Name   (Search)
- City (Search)
- State (Search)
- Number of Enrolled Student (Sort)
- Public/Private (Filter)
- Mascot (Search)
- Acceptance Rate (Filter)
- Graduation Rate (Filter)
- In-state tuition (Sort)
- Out-of-state tuition (Sort)
- Ranking (Sort)
- Average Financial Aid Granted (Search)
- Safety Resource (Search)

Housing

- Property Name (Search)
- Property Type (e.g. apartment, condo, house) (Filter)
- City (Search)
- State (Search)
- Min & Max Rent (Filter)
- Min & Max Bedroom (Filter)
- Min & Max Bathroom (Filter)
- Min & Max Square footage (Filter)
- Pet Friendly (Filter)
- Pet Limitations (Search)
- Schools nearby (Search)
- Building Amenities (Search)
- Walk Score & Transit Score (Search)
- Rating (Sort)
- Accessibility Features (Search)
- Safety Score (Search)
- Included Utilities (Search)

Amenity

- Name   (Search)
- Category   (Search)
- Rating   (Sort)
- Number of Reviews   (Sort)
- City   (Search)
- State   (Search)
- Age Restriction   (Filter)
- Pricing   (Search)
- Delivery / Takeout (For restaurants)   (Filter)
- Operating Hours   (Filter)

Media

University: Pictures, Videos, Map, News Feed

Housing: Pictures, Texts, Map, Property Description

Amenity: Pictures, Map, Yelp Reviews

Connection

University: Connects to Housing because most universities provides their own housing and some people live in housing area near universities for easier commute. It also connects to amenities because universities provides student with entertainment, shops and restaurant.Otherwise, students will go to these areas near campus because they are more accessible.

Housing: Housing connects to universities because housing are an essential part of university. You most certainly have to live in the city where the university is located. Housing also connects to Amenities because a lot of places provides their own amenities to residents or they have amenities like restaurants and convenience stores nearby.

Amenity: Amenities connects to university because universities provide students with amenities or they have many amenities located nearby. Amenities also connects to housing because many apartments and condos have their own amenities. They also tend to have an abundance of amenities nearby.

V. Tools

We used a large variety of tools to make this project possible. Here's a list of tools we used, a link to their original pages, and the purpose we used them for:

- GitLab (https://gitlab.com)
  - GitLab provides us flexible source control, good issue tracking, communication with other teams, and more
- Postman (https://www.postman.com)
  - Postman allows us to manage the API for our website
- React (https://reactjs.org)
  - React provides a more usable framework for front end development
- React Bootstrap (https://react-bootstrap.github.io)
  - React Bootstrap is a CSS framework that incorporates with React
- TypeScript (https://www.typescriptlang.org)
  - TypeScript provides a typing system on top of JS, allowing us to be more explicit about how functions work and what to expect from our code
- Namecheap (https://www.namecheap.com)
  - Namecheap allowed us to procure a domain for our website
- Discord (https://discord.com)
  - Discord allows us to have very active discussion and voice chats in order to keep all the members of our team as informed as possible.
- Amazon Web Service (https://aws.amazon.com)
  - Amazon Web Service helped us host our GitLab repository online and even incorporates live redistributing new code
- NodeJS (https://nodejs.org/en)
  - NodeJS provides a more useful JS runtime for us to experiment with our changes on
- Node Package Manager (https://www.npmjs.com)
  - NPM allows us to easily manage dependencies and packages for our code
- Different API and Data sources:
  - https://www.yelp.com/developers/documentation/v3

- https://collegescorecard.ed.gov/data/documentation/
- https://apify.com/tugkan/apartments-scraper#apartments-scraper
- https://developers.google.com/maps/documentation/places/web-service/overview
- https://docs.gitlab.com/ee/api/api_resources.html

VI. Hosting

We used NameCheap to obtain our domain name campuscatalog.me. We hosted our frontend using AWS Amplify, which syncs to our GitLab repository and redeploys when any changes are made to the production branch.

VII. GitLab

You can find our repository here: https://gitlab.com/RG8452/campus-catalog