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Section 1 - Motivation

The cost of living in Austin has reportedly risen 17.8% since 2010. In the past year alone, the listing prices for houses spiked 28%. Numerous major companies are allocating increased resources in the Austin area as in the case of Tesla announcing their headquarters will be based there as well. Thus, we can only expect a similar steady increase of price as Silicon Valley.

At AffordAustin, we strive to provide plausible living situations in Austin amidst harsh inflation by streamlining the process of finding economical housing, child care, and work.

Section 2 - User Stories

2.1 User Story #1 - Add rating for a job listing's company

“I would like to be able to see the rating a company associated with a job listing has. This way I can learn about a company from actual employees, and not HR. By doing so I will get a more accurate reflection of the workplace and better decide if I want to work there.”

We will be able to provide ratings and reviews for the job listings in this phase!

2.1 User Story #2 - Add information about quick/affordable food in the area

“When thinking about the priorities of low-income residents, one thing my mind immediately goes to is food security. While many people will just go to local fast food places most days in order to save time/money on getting a hot meal for their family, perhaps if your database was somehow able to also track quick, nearby, and healthier options it may help to alleviate some of the issues that come with trying to get quality food on the table when your time and resources are too limited to cook yourself.”

We think that is a great idea! It is, unfortunately, out of the scope at this moment as it would involve adding a fourth model which we do not have the resources to do.

2.1 User Story #3 - Add information about the quality of school districts

“I know for many parents the quality of the schools they are sending their children to is very important. Under housing, y'all could add information about the school district or schools in the area, maybe a general rating, so parents are aware before moving. This also goes hand-in-hand with the child care information because some schools have before or after school programs.”

We think this could've tied really well with schools being a separate model. The idea of having additional models is appealing, but we don't have the resources to add them to our website as of now.

Section 2 - User Stories (Cont.)

2.1 User Story #4 - Links to the job listing website

“As someone looking for jobs in an area, it would be useful if the media for a job includes links to the application page for the company. This will ensure that I can apply directly from the website without having to go to the trouble of looking up the company website separately. This will make the job searching process easier for your customers.”

This is a great idea that we can accomplish through an API. We will go ahead and add this to the job webpages.

2.1 User Story #5 - Add information about rating/reviews of housing locations

“As a user I would want to know how other residents of a certain location would rate the place.”

We actually thought about this, but a lot of the apartment locations don't have a rating on Google. As such, we won't be able to satisfy this requirement.

Section 3 - RESTful API

Documentation here:

<https://documenter.getpostman.com/view/19702236/UVksLu2r>

3.1 Housing requests/responses

- GET All housing - /Housing
 - Sample Request: curl -location -request GET
'<https://www.affordaustin.me/Housing>'
 - Description: Retrieve list of all housing instances.
 - Sample Response:

```
[
  {
    "address": "2906 E Martin Luther King Jr Boulevard",
    "price": 2000000,
    "zip_code": 78722,
    "unit_type": "Multifamily",
    "num_units": 150
  },
  {
    "address": "1015 W William Cannon Drive",
    "price": 500000,
    "zip_code": 78745,
    "unit_type": "Multifamily",
    "num_units": 15
  }
]
```
- GET House by the ID - /Housing/:houseID
 - Sample Request: curl -location -request GET
'<https://www.affordaustin.me/Housing/93484744>'
 - Description: Retrieve all metadata related to houseID instance.
 - Sample Response:

```
{
  "address": "2906 E Martin Luther King Jr Boulevard",
  "price": 2000000,
  "zip_code": 78722,
  "unit_type": "Multifamily",
  "num_units": 150
}
```

Section 3 - RESTful API (Cont.)

3.2 Child Care requests/responses

- GET All child care services - /ChildCare
 - Sample Request: curl -location -request GET
'<https://www.affordaustin.me/ChildCare>'
 - Description: Retrieve list of all child care service instances.
 - Sample Response:

```
[
  {
    "location_address": "6487 WHITBY RD SAN ANTONIO TX- 78240
2131",
    "phone_number": "2106962410",
    "email_address": "jessica.butters@provplace.org",
    "website_address": "www.provplace.org",
    "programs_provided": "School Age Care,Before School Care"
  },
  {
    "location_address": "1711 W ALBERTA RD EDINBURG TX- 78539
8427",
    "phone_number": "9563811117",
    "email_address": "discoveryschool@thediscoveryschool.net",
    "website_address": "www.thediscoveryschool.net",
    "programs_provided": "Meals Provided ,Snacks Provided,Part Time"
  }
]
```
- GET Child care service by ID - /ChildCare/:childcareID
 - Sample Request: curl -location -request GET
'<https://www.affordaustin.me/ChildCare/93484744>'
 - Description: Retrieve all metadata related to childcareID instance
 - Sample Response:

```
{
  "location_address": "6487 WHITBY RD SAN ANTONIO TX- 78240
2131",
  "phone_number": "2106962410",
  "email_address": "jessica.butters@provplace.org",
  "website_address": "www.provplace.org",
  "programs_provided": "School Age Care,Before School Care"
}
```

Section 3 - RESTful API (Cont.)

3.2 Jobs requests/responses

- GET All jobs - /Jobs
 - Sample Request: curl -location -request GET '<https://www.affordaustin.me/Jobs>'
 - Description: Retrieve list of all job instances
 - Sample Response:

```
[
  {
    "title": "Software Engineer I",
    "salary": 100000,
    "address": "10900-II Stonelake Blvd Suite 225",
    "zip_code": 78759,
    "industry": "Computer Science"
  },
  {
    "title": "Manager",
    "salary": 60000,
    "address": "2021B E Riverside Dr",
    "zip_code": 78741,
    "industry": "Food Service"
  }
]
```
- GET Job by ID - Jobs/:jobID
 - Sample Request: curl -location -request GET '<https://www.affordaustin.me/Jobs>'
 - Description: Retrieve all metadata relating to jobID instance
 - Sample Response:

```
{
  "title": "Software Engineer I",
  "salary": 100000,
  "address": "10900-II Stonelake Blvd Suite 225",
  "zip_code": 78759,
  "industry": "Computer Science"
}
```


Section 4 - Models

4.1 Housing

Media:

- Image of the house
- News articles about nearby location
- Data about the house
- Google Maps pin of the location

Attributes:

- *Filter:*
 - Number of Units
 - Tenure
 - Zip Code
 - Unit Type
 - Ground Lease
- *Search:*
 - Address
 - Property Manager Company
 - Property Manager Company name
 - Status (where in the building process)
 - Calculated Fee in Lieu
- Address
- Number of units
- Affordability Period
- Property Manager phone number and email
- Full list of attributes here:
<https://data.austintexas.gov/Housing-and-Real-Estate/City-of-Austin-Affordable-Housing-Inventory/x5p7-qyuv#:~:text=Columns%20in%20this%20Dataset>

Number of Instances: 1000+

Section 4 - Models (Cont.)

4.2 Child Care

Media:

- Image of the facility
- News articles about nearby location
- Data about the service
- Google Maps pin of the location

Attributes:

- *Filter:*
 - Days of Operation
 - Hours of Operation
 - Location Address
 - Programs provided at the Operation
 - County of the Facility / Operation
 - Subsidized Facility / Operation
- *Search:*
 - Website Address
 - Mailing Address
 - Administrator / Director for the Operation
 - Phone Number
 - Email Address
- Full list of attributes here:
<https://data.texas.gov/Social-Services/HHSC-CCL-Daycare-and-Residential-Operations-Data/bc5r-88dy#:~:text=Columns%20in%20this%20Dataset>

Number of Instances: 500+

Section 4 - Models (Cont.)

4.3 Jobs

Media:

- Image of the facility
- Data about the job
- Google Maps pin of the location

Attributes:

- *Filter:*
 - Zip
 - Industry
 - Mobile optimized job
 - Job type (full time, part time, etc)
 - Salary
 - Company's revenue
 - Company size
- *Search:*
 - Date
 - Job Description
 - Job type
 - Company's social networks
 - Company's monthly visitors

Number of Instances: 200

Section 5 - Tools

5.1 Development Tools

- React (<https://reactjs.org/>)
 - Building the web app
 - UI Components
 - Bootstrap (<https://react-bootstrap.github.io/>)
- Amplify (<https://aws.amazon.com/amplify/>)
 - Frontend deployment
- GitLab (<https://gitlab.com/>)
 - Git repository manager
 - Issue tracking
 - CI/CD Pipelines
- Postman (<https://www.postman.com/>)
 - Design RESTful API
- NameCheap (<https://www.namecheap.com/>)
 - Domain name acquisition

5.2 APIs

- Housing in Austin
 - <https://data.austintexas.gov/Housing-and-Real-Estate/City-of-Austin-Affordable-Housing-Inventory/x5p7-qyuv>
- Child Care services
 - <https://data.texas.gov/Social-Services/HHSC-CCL-Daycare-and-Residential-Operations-Data/bc5r-88dy>
- Job listings
 - <https://serpapi.com/google-jobs-api>

Section 6 - Hosting

We used NameCheap to obtain the domain name affordaustin.me then used Custom DNS to connect to AWS Amplify. The Amplify app is stored in two different branches in GitLab: main which is hosted at affordaustin.me and development hosted at <https://development.d4sk31j15mtaj.amplifyapp.com>. Each time a commit is pushed to the branch, Amplify will redeploy to match the code changes.

Section 7 - GitLab

You can view our repository at:

<https://gitlab.com/dinesh.k.balakrishnan/cs373-website>

Section 8 – References

<https://www.kvue.com/article/money/economy/boomtown-2040/austin-cost-of-living-increase-filterbuy/269-de1d7216-fdcb-4c12-b858-081be5869712>

[https://www.kxan.com/news/local/austin/report-austin-home-listing-prices-increase-d-by-28-year-over-year/#:~:text=REPORT%3A%20Austin%20home%20listing%20prices,28%25%20year%2Dover%2Dyear&text=AUSTIN%20\(KXAN\)%20%E2%80%94%20Colder%20weather,10%25%20in%20the%20last%20year](https://www.kxan.com/news/local/austin/report-austin-home-listing-prices-increase-d-by-28-year-over-year/#:~:text=REPORT%3A%20Austin%20home%20listing%20prices,28%25%20year%2Dover%2Dyear&text=AUSTIN%20(KXAN)%20%E2%80%94%20Colder%20weather,10%25%20in%20the%20last%20year)

<https://do512.com/p/big-companies-moving-to-austin>