INTRODUCTION

Thinking of starting a headhunter business in Austin, TX

- 1. Look for jobs available in the neighborhoods to find out the demand and the lack of services
- 2. Delve into each neighborhood to understand why and how available jobs existed in the area
- 3. Compare similarity and dissimilarity among specific neighborhoods to eliminate redundancy

DATASET

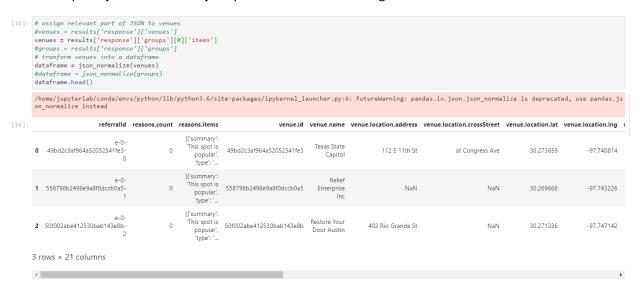
1. Search for jobs in Austin to find out what services are provided there

```
[8]: # assign relevant part of JSON to venues venues = results['response']['venues']
# tranform venues into a dataframe
dataframe = json_normalize(venues)
dataframe.head()

/home/jupyterlab/conda/envs/python/lib/python3.6/site-packages/ipykernel_launcher.py:6: FutureWarning: pandas.io.json.json_normalize is deprecated, use panda
on_normalize instead

18]: id name categories referralld hasPerk location.lat location.lat location.labeledLatt.ngs location.distance location.city location.distance location.distance
```

2. Explore jobs in Austin to jobs provided in different neighborhoods



3. Look into the neighborhood of Texas State Capitol

```
[27]: lat = items[0]['venue']['location']['lat']
lng = items[0]['venue']['location']['lng']
lat, lng

[27]: (30.27365925589791, -97.7408135475542)
```

There are 3 businesses around this neighborhood

```
[29]: search_query = 'Jobs'
       reduis = 505
url = 'https://api.foursquare.com/v2/venues/explore?client_id={}&client_secret={}&ll={},{}&v={})&query={}&radius={}}&limit={}'.format(CLIENT_ID, CLIENT_SECRET, latresults = requests.get(url).json()
       items = results['response']['groups'][0]['items']
      dataframe = json_normalize(items)
#dataframe = json_normalize(groups)
dataframe.head()
       /home/jupyterlab/conda/envs/python/lib/python3.6/site-packages/ipykernel_launcher.py:9: FutureWarning: pandas.io.json_normalize is deprecated, use pandas.js
       on_normalize instead
if __name__ == '__main__':
                          referralld reasons.count reasons.items
                                                                                    venue.id venue.name venue.location.address venue.location.crossStreet venue.location.lat venue.location.lng v
                                                      Texas State
       0 49bd2c3af964a52052541fe3-
                                                                                                                    112 E 11th St
                                                                                                                                           at Congress Ave
                                                                                                                                                                  30.273659
                                                                                                                                                                                     -97.740814
                                                         popular',
'type': '...
                                                      1 51ad59b3454af716216ea267-
                                                                                                              815 Brazos St Ste A
                                                                                                                                                                   30.269835
                                                                                                                                                                                     -97.738173
                                                                                              Shop Austin
                                                         type': '..
                                                      [{'summary':
                                                       'This spot is
popular',
                                                                   51fc4dbd498efbf24fb82575
                                                                                                                                         btwn 9th & 10th St
                                                                                                                                                                                     -97.737595
                                                                                                  Theatre
                                                          'tvpe': '...
      3 rows × 21 columns
```

4. Look into the neighborhood of Relief Enterprise Inc

```
[30]: lat = items[1]['venue']['location']['lat']
lng = items[1]['venue']['location']['lng']
lat, lng
```

[30]: (30.26983497612058, -97.73817300796507)

There are 5 businesses around this neighborhood

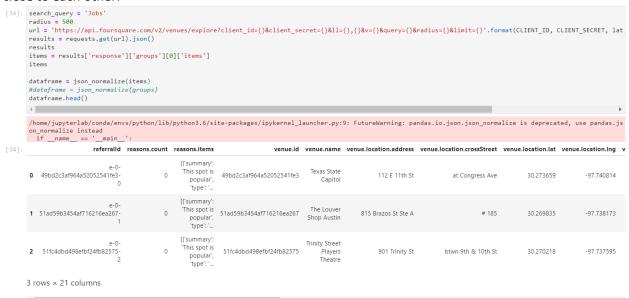
	referralld	reasons.count	reasons.items	venue.id	venue.name	venue.location.address	$venue. location. cross {\tt Street}$	venue.location.lat	venue.location.lng
0	e-0- 422f8e00f964a520fc1f1fe3-0	0	[{'summary': 'This spot is popular', 'type': '	422f8e00f964a520fc1f1fe3	Elysium	705 Red River St	at 7th Street	30.267676	-97.736655
1	e-0- 414f6f00f964a520fc1c1fe3-1	0	[{'summary': 'This spot is popular', 'type': '	414f6f00f964a520fc1c1fe3	The Jackalope	404 E 6th St	btwn Trinity St. & Neches St.	30.267131	-97.739052
2	e-0- 49bd2c3af964a52052541fe3- 2	0	[{'summary': 'This spot is popular', 'type': '	49bd2c3af964a52052541fe3	Texas State Capitol	112 E 11th St	at Congress Ave	30.273659	-97.740814
3	e-0- 51ad59b3454af716216ea267- 3	0	[{'summary': 'This spot is popular', 'type': '	51ad59b3454af716216ea267	The Louver Shop Austin	815 Brazos St Ste A	# 185	30.269835	-97.738173
4	e-0- 51fc4dbd498efbf24fb82575- 4	0	[{'summary': 'This spot is popular', 'type': '	51fc4dbd498efbf24fb82575	Trinity Street Players Theatre	901 Trinity St	btwn 9th & 10th St	30.270218	-97.737595

5. Look into

```
[33]: lat = items[2]['venue']['location']['lat']
lng = items[2]['venue']['location']['lng']
lat, lng
```

[33]: (30.27365925589791, -97.7408135475542)

There are the same businesses as of the first coordinate because their coordinates are very close to each other.



6. There are many different opportunities for technology and big data.

METHODOLOGY

RESULTS

DISCUSSION

CONCLUSION