

# COGS 108 Project

December 16, 2020

## COGS 108- FINAL PROJECT

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Research Question: What are the most pleasant (safe/least police visits and best ratings) SD Parks and Rec locations?

Hypothesis: The most pleasant SD Parks and Rec locations will be those that are more private and have scheduled activities.

Data:

### SETUP

```
[88]: %matplotlib inline

import numpy as np
import pandas as pd
import matplotlib.pyplot as plt

[89]: yelp_info = pd.read_csv('yelp_SD_parks.csv')
yelp_reviews = pd.read_csv('yelp_SD_reviews.csv')

budget_data = pd.read_csv('actuals_operating_datasd.csv')
budget_dic = pd.read_csv('operating_actuals_dictionary_datasd.csv')

crime2019_data = pd.read_csv('pd_calls_for_service_2019_datasd.csv')
crime2020_data = pd.read_csv('pd_calls_for_service_2020_datasd.csv')
```

### DATA CLEANING

```
[4]: pb = budget_data[budget_data['dept_name']=='Parks & Recreation'].
    ↳drop_duplicates(subset=["account"])
pb = pb.sort_values(by= 'account')

[30]: y_info = yelp_info.drop(columns=['phone', 'id', 'url', 'longitude', 'latitude',
    ↳'is_closed'])

[ ]: cd9 = crime2019_data.drop(columns=['incident_num', 'date_time', 'day_of_week',
    ↳'address_dir_primary', 'address_dir_intersecting',
    ↳'address_road_intersecting', 'address_sfx_intersecting'])
```

```
cd9 = cd9.drop_duplicates(subset=['address_number_primary',
↳ 'address_road_primary', 'address_sfx_primary'])
cd9 = cd9.dropna(subset = ['address_number_primary', 'address_road_primary',
↳ 'address_sfx_primary'])
```

## DATA ANALYSIS

```
[53]: addresses = pd.DataFrame(columns=['ad'])
for i in range(len(cd9)):
    ad = str.lower(str(cd9['address_number_primary'].iloc[i]))
    ad = ad+str('')+str.lower(str(cd9['address_road_primary'].iloc[i]))
    ad = ad+str('')+str.lower(str(cd9['address_sfx_primary'].iloc[i]))
    addresses.loc[i, 'ad']=ad
```

```
[50]: num = 0
for i in y_info['address']:
    i=i.split(", ", 1)[0]
    i = i[0:i.find('San Diego')]
    y_info.loc[num, 'ad']=str.lower(i)
    num=num+1
```

```
[69]: addresses['ad']
```

```
[69]: 0      3800 national ave
1      6500 reflection dr
2           0 06th ave
3           0 vesta st
4           0 04th ave
...
29262      0 dahlia st
29263      9600 murray dr
29264      0 tiverton rd
29265      2600 cagayan ave
29266      0 alta vista st
Name: ad, Length: 29267, dtype: object
```

```
[68]: y_info['ad']
```

```
[68]: 0      1549 el prado
1      7960 civita blvd
2      1600 pacific hwy
3      adams ave and florida st
4      413 1st st coronad
...
828
829      1255 imperial ave ste 1000
830      100 park blvd
```

```

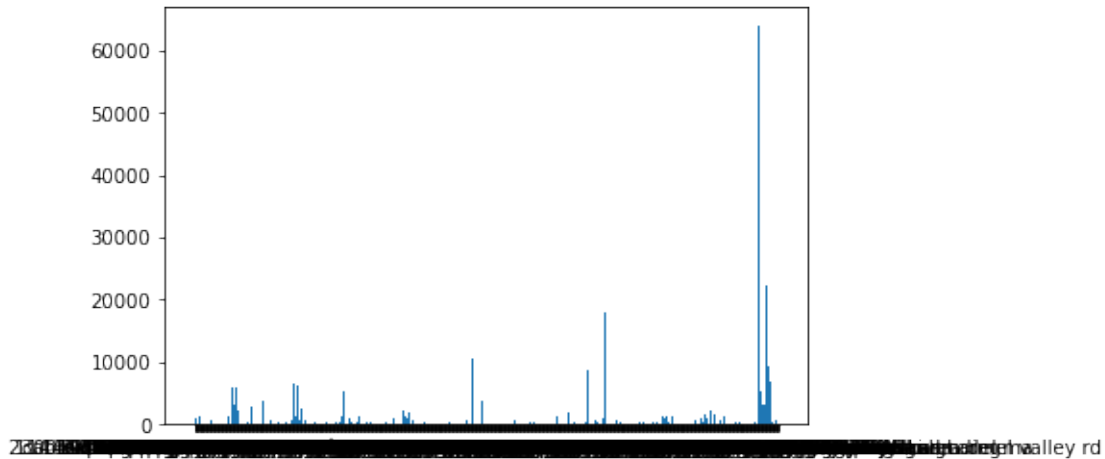
831     2700 carlsbad village dr carlsba
832         4949 s mission rd fallbroo
Name: ad, Length: 833, dtype: object

```

```
[76]: y_info['rat*rev']= y_info['rating']*y_info['review_count']
```

```
[84]: plt.bar(y_info['ad'], y_info['rat*rev'])
```

```
[84]: <BarContainer object of 833 artists>
```



```
[86]: y_info.sort_values(by='rat*rev')
```

```
[86]:
```

|     | name \                          | address                                      | rating | review_count \ |
|-----|---------------------------------|--|--------|----------------|
| 506 | Penasquitas Casa Blanca         | 9404 Twin Trails Dr San Diego, CA 92129      | 1.0    | 1              |
| 134 | City of Lakeside                | 12652 Woodside Ave Lakeside, CA 92040        | 1.0    | 1              |
| 155 | Sunnyslope Park                 | 2600 Elm St San Diego, CA 92102              | 1.0    | 1              |
| 568 | Lakeview Mobile Estates         | 809 Discovery St Spc 28 San Marcos, CA 92078 | 1.0    | 1              |
| 572 | Vista Terrace Neighborhood Park | 301 Athey Ave San Ysidro, CA 92173           | 1.0    | 1              |
| ..  | ...                             |  |        |                |
| 586 | CUCINA urbana                   |  |        |                |
| 557 | San Diego Zoo                   |  |        |                |
| 814 | Hodad's                         |  |        |                |
| 585 | Extraordinary Desserts          |  |        |                |
| 804 | Phil's BBQ                      |  |        |                |

|     |  |     |     |       |
|-----|--|-----|-----|-------|
| ..  |  | ... | ... | ...   |
| 586 | 1735 Hancock St San Diego, CA 92101        | 4.5 |     | 3987  |
| 557 | 2920 Zoo Dr San Diego, CA 92101            | 4.5 |     | 4549  |
| 814 | 5010 Newport Ave San Diego, CA 92107       | 4.0 |     | 5548  |
| 585 | 1430 Union St San Diego, CA 92101          | 4.0 |     | 7700  |
| 804 | 3750 Sports Arena Blvd San Diego, CA 92110 | 4.5 |     | 14195 |

|     |                                   |         |
|-----|-----------------------------------|---------|
|     | ad                                | rat*rev |
| 506 | 9404 twin trails dr               | 1.0     |
| 134 | 12652 woodside ave lakesid        | 1.0     |
| 155 | 2600 elm st                       | 1.0     |
| 568 | 809 discovery st spc 28 san marco | 1.0     |
| 572 | 301 athey ave san ysidr           | 1.0     |

|     |                        |         |
|-----|------------------------|---------|
| ..  | ...                    | ...     |
| 586 | 1735 hancock st        | 17941.5 |
| 557 | 2920 zoo dr            | 20470.5 |
| 814 | 5010 newport ave       | 22192.0 |
| 585 | 1430 union st          | 30800.0 |
| 804 | 3750 sports arena blvd | 63877.5 |

[833 rows x 6 columns]