

# CAROLINA BREW

## TEAM:

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## PROJECT IDEA:

- Covid-19 has created a society with a bit of claustrophobia.
  - What will people want to do now that states are opening back up?
  - Day trips? Weekend Trips?
  - Distance? North and South Carolina
  - Something new!
  - Result:
    - Bars in NC and SC
    - What are they rated?
    - How expensive?
    - Reviews?
- 

## DATA SETS:

- Kaggle – Breweries and Beer Pubs in the US



- 'https://api.yelp.com/v3/businesses/search'

```
params = {'term': 'bars', 'location': 'NC'}
response=requests.get(url, params=params, headers=headers).json()
```

- 'https://api.yelp.com/v3/businesses/search'

```
params = {'term': 'bars', 'location': 'SC'}
response=requests.get(url, params=params, headers=headers).json()
```

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# CAROLINA BREW

## EXTRACT – KAGGLE .CSV FILE

- Inspected File

```
csv_file = "Resources/7160_1.csv"
breweries_data_df = pd.read_csv(csv_file)
breweries_data_df.head()
```

	address	categories	city	country	key	lat	long	name	phones	postalCode	province	webs
0	407 Radam Ln	brewery	Austin	US	us/tx/austin/407radamLn	NaN	NaN	(512) Brewing Co	5127072337	78745	TX	NaN

- Removed rows with NaN data

```
breweries_data_df.dropna(inplace=True)
```

- Removed columns not required for final data table
- Sorted the table into a readable order

```
del breweries_data_df["key"]
del breweries_data_df["long"]
del breweries_data_df["lat"]
del breweries_data_df["categories"]
breweries_data_df = breweries_data_df[["name", "phones", "address", "city", "province", "postalCode", "websites"]]
del breweries_data_df["postalCode"]
```

- Data set reduced to North and South Carolina only

```
options = ['NC', 'SC']
breweries_data_df = breweries_data_df[breweries_data_df['province'].isin(options)]
```

- Renamed columns

```
breweries_data_df = breweries_data_df.rename(columns={"province": "state", "postalCode": "zip_code", "address": "address1"})
```

- Final Count: 77 Bars in breweries\_data\_df

```
name      77
phones    77
address1  77
city      77
state     77
zip_code  77
websites  77
```

# CAROLINA BREW

## EXTRACT – Yelp – North Carolina

- `headers = {'Authorization': 'Bearer %s' % api_key}`
- `url='https://api.yelp.com/v3/businesses/search' https://api.yelp.com/v3/businesses/search'`
- `params = {'term': 'bars', 'location': 'NC'}`
- `response=requests.get(url, params=params, headers=headers).json()`
- `bars_nc = json.dumps(response, indent = 4, sort_keys=True)`
- `response['businesses']`

- Inspect the Data

```
'url': 'https://www.yelp.com/biz/stroke-charlotte?adjust_creative=1_exTwTpzeU_FUI7UJU-g&utm_campaign=yelp_api_v3&utm_medium=api_v3_business_search&utm_source=1_exTwTpzeU_FUI7UJU-g',
'review_count': 24,
'categories': [{'alias': 'mini_golf', 'title': 'Mini Golf'},
{'alias': 'cocktailbars', 'title': 'Cocktail Bars'}],
'rating': 4.5,
'coordinates': {'latitude': 35.2210991686455,
'longitude': -80.8131461568783},
'transactions': [],
'location': {'address1': '1318 Pecan Ave',
'address2': None,
'address3': '',
'city': 'Charlotte',
'zip_code': '28205',
'country': 'US',
'state': 'NC',
'display_address': ['1318 Pecan Ave', 'Charlotte, NC 28205']},
'phone': '+17044627007',
'display_phone': '(704) 462-7007'
```

## TRANSFORM – Yelp – North Carolina

- Created a list of data needed for final DataFrame

```
bar_id = []
address1 = []
price = []
rating = []
review_count = []

for row in response['businesses']:
    try:
        bar_id.append(row['id']),
        address1.append(row['location']['address1']),
        price.append(row['price']),
        rating.append(row['rating']),
        review_count.append(row['review_count'])
    except:
        pass
```

- Created a Pandas DataBase that does NOT remove rows with NaN (thank you Geronimo)

```
data = {'address1': address1, 'bar_id': bar_id, 'price': price, 'rating': rating, 'review_count': review_count}
```

# CAROLINA BREW

```
bars_nc_df = pd.DataFrame(dict([ (k,pd.Series(v)) for k,v
in data.items() ]))
```

- Final Count: 20 Bars in North Carolina

address1	20
bar_id	20
price	14
rating	14
review_count	14

## EXTRACT – Yelp – South Carolina

```
headers = {'Authorization': 'Bearer %s' % api_key}
url='https://api.yelp.com/v3/businesses/search'https://api.yelp.com/v3/businesses/search'
params = {'term':'bars','location':'SC'}
response=requests.get(url, params=params, headers=headers).json()
bars_sc = json.dumps(response, indent = 4, sort_keys=True)
response['businesses']
```

- Inspect the Data

```
{'id': 'eL-gvkAzpoGHMmgKURSJDw',
 'alias': 'the-whig-columbia',
 'name': 'The Whig',
 'image_url': 'https://s3-media3.fl.yelpcdn.com/bphoto/o2ir-8jXxM',
 'is_closed': False,
 'url': 'https://www.yelp.com/biz/the-whig-columbia?adjust_creati
siness_search&utm_source=1_exTwTpvzeU_FUI7UJu-g',
 'review_count': 203,
 'categories': [{'alias': 'divebars', 'title': 'Dive Bars'}],
 'rating': 4.5,
 'coordinates': {'latitude': 34.0015114, 'longitude': -81.033505},
 'transactions': ['delivery'],
 'price': '$',
 'location': {'address1': '1200 Main St',
 'address2': '',
 'address3': '',
 'city': 'Columbia',
 'zip_code': '29201',
 'country': 'US',
 'state': 'SC',
 'display_address': ['1200 Main St', 'Columbia, SC 29201']},
 'hours': {'open': {'monday': {'start': '11:00', 'end': '11:00', 'is_closed': True},
 'tuesday': {'start': '11:00', 'end': '11:00', 'is_closed': True},
 'wednesday': {'start': '11:00', 'end': '11:00', 'is_closed': True},
 'thursday': {'start': '11:00', 'end': '11:00', 'is_closed': True},
 'friday': {'start': '11:00', 'end': '11:00', 'is_closed': True},
 'saturday': {'start': '11:00', 'end': '11:00', 'is_closed': True},
 'sunday': {'start': '11:00', 'end': '11:00', 'is_closed': True}}},
 'photos': ['https://s3-media3.fl.yelpcdn.com/bphoto/o2ir-8jXxM']}
```

## TRANSFORM – Yelp – South Carolina

- Created a list of data needed for final DataFrame

```
bar_id = []
```

# CAROLINA BREW

```

• address1 = []
• price = []
• rating = []
• review_count = []

• for row in response['businesses']:
    try:
        bar_id.append(row['id']),
        address1.append(row['location']['address1']),
        price.append(row['price']),
        rating.append(row['rating']),
        review_count.append(row['review_count'])
    except:
        pass

```

- Created a Pandas DataBase that does NOT remove rows with NaN (thank you Geronimo)

```

• data = {'address1':address1, 'bar_id': bar_id, 'price': p
rice, 'rating': rating, 'review_count': review_count}
• bars_sc_df = pd.DataFrame(dict([ (k,pd.Series(v)) for k,v
in data.items() ]))

```

- Final Count: 20 Bars in South Carolina

address1	20
bar_id	20
price	16
rating	16
review_count	16

SEND TABLES TO POSTGRES (pgAdmin4):

```
breweries_data_df.to_sql(name='breweries_data', con=engine, if_exists='append', index=False)
```

```
bars_nc_df.to_sql(name='bars_nc', con=engine, if_exists='append', index=False)
```

```
bars_sc_df.to_sql(name='bars_sc', con=engine, if_exists='append', index=False)
```

- Altered breweries\_data by adding three columns

```
ALTER TABLE breweries_data
ADD COLUMN price text,
ADD COLUMN rating double precision,
ADD COLUMN review_count double precision;
```

- Confirmed tables were present in pgAdmin4

```
SELECT * FROM bars_nc

SELECT * FROM bars_sc

SELECT * FROM breweries_data
```

- Merged to final table: breweries

```
-- Merge tables
CREATE TABLE breweries_combined
AS
SELECT * FROM breweries_data
UNION
SELECT * FROM bars_sc

CREATE TABLE breweries
AS
SELECT * FROM breweries_combined
UNION
SELECT * FROM bars_nc
```

# CAROLINA BREW

LOAD:

- Confirmed merged table
- Confirmed size of table: 117 rows

	name text	phone text	address1 text	city text	state text	zip_code text	website text	price text	rating double precision	review_count double precision
1	The Fai...	+1980309...	226 Fairwood...	Charlotte	NC	28203	https://api.y...	\$	4.5	
2	The Ca...	91985910...	6454 Tryon Rd	Cary	NC	27518	http://theca...	[null]	[null]	[
3	Amos ...	82826100...	2828 Us High...	Hickory	NC	28602	http://api.ci...	[null]	[null]	[
4	The Ba...	+1980439...	14 Union St S	Concord	NC	28025	[null]	\$	5	
5	Lake J...	82858445...	204 E Main St	Glenalp...	NC	28628	http://api.ci...	[null]	[null]	[
6	Holy Ci...	84322560...	4155 C Dorch...	N Charl...	SC	29405	http://www....	[null]	[null]	[
7	Bull Cit...	91968023...	107 E Parrish ...	Durham	NC	27701	http://www....	[null]	[null]	[

Conclusion:

- Road Trip: Going to Durham.

```

38 SELECT *
39 FROM breweries
40 WHERE
41     city = 'Durham';

```

	name text	phone text	address1 text	city text	state text	zip_code text	website text	price text	rating double precision	review_count double precision
1	Bull City Burger and Bre...	91968023...	107 E Parrish St	Durham	NC	27701	http://www...	[null]	[null]	[null]
2	Ponysaurus Brewing	97848277...	219 Hood St	Durham	NC	27701	http://ponys...	[null]	[null]	[null]
3	Jc's Kitchen	91968062...	706 E Main St	Durham	NC	27701	jcskitchens...	[null]	[null]	[null]
4	Bull City Ciderworks	13367493...	113 S Elizabeth St	Durham	NC	27701	bullcitycider...	[null]	[null]	[null]

- Four locations for us to visit!
- Accomplished: Generated a production database displaying breweries in North Carolina and South Carolina