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).jso
n()
```

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

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

Created March 22, 2021

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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"]]
```

- 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
```

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EXTRACT – Yelp – North Carlina

```
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_exTwTpvzeU_FUI7UJu-g&utm_campaign=yelp_api_v3&utm_medium=api_v3_business_search&utm_source=1_exTwTpvzeU_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',
```


TRANSFORM – Yelp – North Carlina

- 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}
```

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```
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 Carlina

```
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']},
```

TRANSFORM – Yelp – South Carlina

- Created a list of data needed for final DataFrame

```
bar_id = []
```

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```
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}
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)
```

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- 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
```

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LOAD:

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

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

Data Output | Explain | Messages | Notifications

	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]

Conclusion:

- Road Trip: Going to Durham.


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

Data Output | Explain | Messages | Notifications

	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