

In [1]:

```
import requests
import json
import tabulate
import math
import pandas
import numpy
import matplotlib.pyplot
pandas.set_option('display.max_rows', None)
pandas.set_option('display.max_colwidth', 60)
```

In [4]:

```
url = "https://worldwide-restaurants.p.rapidapi.com/search"
payload = "language=en_US&limit=50&location_id=37209&currency=USD"
headers = {
    'content-type': "application/x-www-form-urlencoded",
    'x-rapidapi-host': "worldwide-restaurants.p.rapidapi.com",
    'x-rapidapi-key': PRIVATE_RAPIDAPI_KEY
}

restaurants = requests.request("POST", url, data=payload, headers=headers)
eventsSeatgeek = requests.get("https://api.seatgeek.com/2/events?datetime_utc.gte=2022-05-22&datetime_utc.lte=2022-07-31&venue.city=indianapolis&client_id=" + PRIVATE_AUTH_TOKEN_SEATGEEK)
```

In [5]:

```
eventsJson = json.loads(eventsSeatgeek.text)
eventDict = {}
for event in eventsJson["events"]:
    eventDict[event['title'] + ' ' + event['datetime_utc']] = (float(event['venue']['location']['lat']), float(event['venue']['location']['lon']))
restaurantsJson = json.loads(restaurants.text)
for restaurant in restaurantsJson["results"]["data"]:
    eventDict[restaurant['name']] = (float(restaurant['latitude']), float(restaurant['longitude']))
## Some conferences and events that APIs couldn't find!
eventDict["APIC Annual Conference"] = (39.764340, -86.162410)
eventDict["Information/Cybersecurity Officer/IT Officer /Operations Officer Forum"] = (39.909480, -86.118700)
eventDict["Talbot Street Art Fair 7-18"] = (39.788442623619844, -86.1549013729776)
```

In [6]:

```
IUPUIDict = {}
IUPUILat = 39.773889979448384
IUPUILon = -86.18491170181358
header = ["Events", "Distance"]
for event, loc in eventDict.items():
    IUPUIDict[event] = math.sqrt((loc[0] - IUPUILat) ** 2 + (loc[1] - IUPUILon) ** 2)
sorted_IUPUIDict = sorted(IUPUIDict.items(), key=lambda item: item[1])
dfIUPUI = pandas.DataFrame(sorted_IUPUIDict, columns=header)
within2IUPUI = 0
for field in sorted_IUPUIDict:
    if (field[1] <= .03): ##within 2ish miles
        within2IUPUI += 1
print("Total viable places within 2 miles: " + str(within2IUPUI))
print(dfIUPUI)
```

Total viable places within 2 miles: 19

	Events	Distance
0	Tedeschi Trucks Band with Gabe Dixon and St. Paul & The ...	0.016795
1	Barenaked Ladies (Rescheduled from 7/5/2020, 7/2/2021) 2...	0.016795
2	5 Seconds of Summer with The Band Camino 2022-07-15T23:0...	0.016795
3	OP Italian	0.018569
4	High Velocity	0.019070
5	Long's Bakery	0.021137

6	Conner's Kitchen + Bar	0.021878
7	APIC Annual Conference	0.024444
8	Tony's of Indianapolis	0.025280
9	Tastings A Wine Experience	0.026082
10	Ruth's Chris Steak House	0.026223
11	The Capital Grille	0.026522
12	St. Elmo Steak House	0.026525
13	Harry and Izzy's	0.026823
14	Yard House	0.027157
15	Nada	0.027249
16	The Oceanaire Seafood Room	0.027872
17	Slippery Noodle Inn	0.028988
18	Fogo de Chao Brazilian Steakhouse	0.029927
19	Shapiro's Delicatessen	0.030976
20	The Eagle on Mass Ave	0.031069
21	Bazbeaux Pizza	0.031364
22	Greek Islands Restaurant INC	0.031522
23	Bakersfield	0.031623
24	Iozzo's Garden of Italy	0.032214
25	Bru Burger Bar	0.032989
26	Talbot Street Art Fair 7-18	0.033353
27	Yolk - City Way	0.033577
28	Wallows 2022-06-07T00:00:00	0.033816
29	Celtic Woman 2022-06-03T23:30:00	0.034317
30	Tom Segura 2022-06-11T23:00:00	0.034317
31	Union 50	0.035881
32	Vida	0.038136
33	Mesh	0.038906
34	St. Joseph Brewery & Public House	0.039276
35	Livery	0.039484
36	Bosphorus Istanbul Cafe	0.040526
37	Iaria's Italian Restaurant	0.040957
38	Milktooth	0.040992
39	Bluebeard	0.042229
40	Mimi Blue Meatballs	0.042470
41	Indianapolis 500 Legends Day 2022-05-28T14:00:00	0.054787
42	Indianapolis 500 2022-05-29T16:45:00	0.054787
43	The Tamale Place	0.064676
44	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.067905
45	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.067905
46	Cafe Patachou	0.075356
47	The Library Restaurant and Pub	0.080290
48	Delicia	0.083232
49	Good Morning Mama's Cafe	0.088394
50	Mama Carolla's Old Italian Restaurant	0.088742
51	BRICS - Broad Ripple Ice Cream Station	0.107314
52	Fire by the Monon	0.108881
53	Information/Cybersecurity Officer/IT Officer /Operations...	0.150893
54	Seasons 52	0.157076
55	Sullivan's Steakhouse	0.157812
56	Ocean Prime	0.158638
57	Burger Theory at the Holiday Inn Indianapolis Airport	0.159739
58	Harry & Izzy's Northside	0.161308
59	Brozinni Pizzeria	0.168906
60	Cooper's Hawk Winery & Restaurants	0.173870
61	Caplinger's Fresh Catch	0.180729

In [7]:

```

SpeakEasyDict = {}
SpeakEasyLat = 39.848926068681784
SpeakEasyLon = -86.1410815306477
header = ["Events", "Distance"]
for event, loc in eventDict.items():
    SpeakEasyDict[event] = math.sqrt((loc[0] - SpeakEasyLat) ** 2 + (loc[1] - SpeakEasyLon) ** 2)
sorted_SpeakEasyDict = sorted(SpeakEasyDict.items(), key=lambda item: item[1])
dfSpeakEasy = pandas.DataFrame(sorted_SpeakEasyDict, columns=header)
within2SpeakEasy = 0
for field in sorted_SpeakEasyDict:
    if (field[1] <= .03): ##within 2ish miles

```

```

        within2SpeakEasy += 1
print("Total viable places within 2 miles: " + str(within2SpeakEasy))
print(dfSpeakEasy)

```

Total viable places within 2 miles: 8

	Events	Distance
0	Good Morning Mama's Cafe	0.001919
1	Mama Carolla's Old Italian Restaurant	0.001994
2	Delicia	0.004796
3	Cafe Patachou	0.014612
4	BRICS - Broad Ripple Ice Cream Station	0.023408
5	Fire by the Monon	0.025651
6	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.029692
7	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.029692
8	Talbot Street Art Fair 7-18	0.062042
9	Information/Cybersecurity Officer/IT Officer /Operations...	0.064558
10	Mimi Blue Meatballs	0.069711
11	Seasons 52	0.070381
12	Sullivan's Steakhouse	0.071050
13	Ocean Prime	0.071743
14	Livery	0.072337
15	Mesh	0.072364
16	Union 50	0.073404
17	St. Joseph Brewery & Public House	0.074111
18	Harry & Izzy's Northside	0.074721
19	Celtic Woman 2022-06-03T23:30:00	0.075032
20	Tom Segura 2022-06-11T23:00:00	0.075032
21	Wallows 2022-06-07T00:00:00	0.075196
22	Bru Burger Bar	0.076506
23	Bakersfield	0.077982
24	Vida	0.078199
25	Bazbeaux Pizza	0.078244
26	The Eagle on Mass Ave	0.078280
27	Fogo de Chao Brazilian Steakhouse	0.083482
28	The Capital Grille	0.083508
29	Tastings A Wine Experience	0.083593
30	Tony's of Indianapolis	0.083961
31	Ruth's Chris Steak House	0.084821
32	The Oceanaire Seafood Room	0.084831
33	Nada	0.084976
34	Yard House	0.085527
35	Long's Bakery	0.085540
36	OP Italian	0.086028
37	St. Elmo Steak House	0.086160
38	Conner's Kitchen + Bar	0.086182
39	Harry and Izzy's	0.086653
40	High Velocity	0.086950
41	Iaria's Italian Restaurant	0.086989
42	Cooper's Hawk Winery & Restaurants	0.087043
43	APIC Annual Conference	0.087234
44	Yolk - City Way	0.088270
45	Tedeschi Trucks Band with Gabe Dixon and St. Paul & The ...	0.088872
46	Barenaked Ladies (Rescheduled from 7/5/2020, 7/2/2021) 2...	0.088872
47	5 Seconds of Summer with The Band Camino 2022-07-15T23:0...	0.088872
48	Slippery Noodle Inn	0.089013
49	Milktooth	0.090052
50	Bluebeard	0.091453
51	Shapiro's Delicatessen	0.094416
52	Bosphorus Istanbul Cafe	0.094736
53	Greek Islands Restaurant INC	0.095405
54	Iozzo's Garden of Italy	0.096495
55	Caplinger's Fresh Catch	0.103061
56	Indianapolis 500 Legends Day 2022-05-28T14:00:00	0.108361
57	Indianapolis 500 2022-05-29T16:45:00	0.108361
58	The Tamale Place	0.136481
59	The Library Restaurant and Pub	0.163356
60	Brozinni Pizzeria	0.217871
61	Burger Theory at the Holiday Inn Indianapolis Airport	0.242705

In [8]:

```
zWORKSDict = {}
```

```

zWORKSLat = 39.951492279416236
zWORKSLon = -86.26088043062407
header = ["Events", "Distance"]
for event, loc in eventDict.items():
    zWORKSDict[event] = math.sqrt((loc[0] - zWORKSLat) ** 2 + (loc[1] - zWORKSLon) ** 2)
sorted_zWORKSDict = sorted(zWORKSDict.items(), key=lambda item: item[1])
dfzWORKS = pandas.DataFrame(sorted_zWORKSDict, columns=header)
within2zWORKS = 0
for field in sorted_zWORKSDict:
    if (field[1] <= .03): ##within 2ish miles
        within2zWORKS += 1
print("Total viable places within 2 miles: " + str(within2zWORKS))
print(dfzWORKS)

```

Total viable places within 2 miles: 0

	Events	Distance
0	Fire by the Monon	0.140595
1	BRICS - Broad Ripple Ice Cream Station	0.142724
2	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.144219
3	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.144219
4	Information/Cybersecurity Officer/IT Officer /Operations...	0.148258
5	Cafe Patachou	0.152234
6	Seasons 52	0.153789
7	Sullivan's Steakhouse	0.155203
8	Delicia	0.155453
9	Good Morning Mama's Cafe	0.156253
10	Mama Carolla's Old Italian Restaurant	0.156629
11	Indianapolis 500 Legends Day 2022-05-28T14:00:00	0.158174
12	Indianapolis 500 2022-05-29T16:45:00	0.158174
13	Ocean Prime	0.160214
14	Cooper's Hawk Winery & Restaurants	0.161251
15	Harry & Izzy's Northside	0.170784
16	Long's Bakery	0.174393
17	The Tamale Place	0.186454
18	Talbot Street Art Fair 7-18	0.194465
19	OP Italian	0.206633
20	Tedeschi Trucks Band with Gabe Dixon and St. Paul & The ...	0.207105
21	Barenaked Ladies (Rescheduled from 7/5/2020, 7/2/2021) 2...	0.207105
22	5 Seconds of Summer with The Band Camino 2022-07-15T23:0...	0.207105
23	High Velocity	0.207586
24	Union 50	0.208107
25	Wallows 2022-06-07T00:00:00	0.208359
26	Celtic Woman 2022-06-03T23:30:00	0.208538
27	Tom Segura 2022-06-11T23:00:00	0.208538
28	Mimi Blue Meatballs	0.208854
29	Bru Burger Bar	0.208952
30	Conner's Kitchen + Bar	0.209042
31	Mesh	0.209073
32	The Eagle on Mass Ave	0.209198
33	Bakersfield	0.209310
34	Bazbeaux Pizza	0.209359
35	Livery	0.209401
36	Tony's of Indianapolis	0.209807
37	Tastings A Wine Experience	0.210074
38	The Capital Grille	0.210304
39	St. Joseph Brewery & Public House	0.210815
40	Ruth's Chris Steak House	0.211046
41	APIC Annual Conference	0.211477
42	Nada	0.211832
43	The Oceanaire Seafood Room	0.212138
44	Yard House	0.212152
45	St. Elmo Steak House	0.212165
46	Fogo de Chao Brazilian Steakhouse	0.212505
47	Harry and Izzy's	0.212690
48	Vida	0.213523
49	Slippery Noodle Inn	0.215619
50	Yolk - City Way	0.218097
51	Shapiro's Delicatessen	0.219986
52	Greek Islands Restaurant INC	0.220856
53	Iaria's Italian Restaurant	0.221701
54	Iozzo's Garden of Italy	0.221859
55	Caplinger's Fresh Catch	0.222720

56		Milktooth	0.223766
57		The Library Restaurant and Pub	0.224014
58		Bluebeard	0.225393
59		Bosphorus Istanbul Cafe	0.226357
60	Burger Theory at the Holiday Inn Indianapolis Airport		0.280885
61		Brozinni Pizzeria	0.359490

In [9]:

```
FishersDict = {}
FishersLat = 39.966755356658545
FishersLon = -86.00881953064528
header = ["Events", "Distance"]
for event, loc in eventDict.items():
    FishersDict[event] = math.sqrt((loc[0] - FishersLat) ** 2 + (loc[1] - FishersLon) **
2)
sorted_FishersDict = sorted(FishersDict.items(), key=lambda item: item[1])
dfFishers = pandas.DataFrame(sorted_FishersDict, columns=header)
within2Fishers = 0
for field in sorted_FishersDict:
    if (field[1] <= .03): ##within 2ish miles
        within2Fishers += 1
print("Total viable places within 2 miles: " + str(within2Fishers))
print(dfFishers)
```

Total viable places within 2 miles: 0

	Events	Distance
0	Caplinger's Fresh Catch	0.085280
1	Cooper's Hawk Winery & Restaurants	0.101123
2	Harry & Izzy's Northside	0.104706
3	Ocean Prime	0.111652
4	Sullivan's Steakhouse	0.114995
5	Seasons 52	0.116325
6	Information/Cybersecurity Officer/IT Officer /Operations...	0.123912
7	Fire by the Monon	0.163050
8	BRICS - Broad Ripple Ice Cream Station	0.163381
9	Mama Carolla's Old Italian Restaurant	0.175630
10	Good Morning Mama's Cafe	0.176105
11	Delicia	0.181619
12	Cafe Patachou	0.191174
13	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.204580
14	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.204580
15	Mimi Blue Meatballs	0.230454
16	Talbot Street Art Fair 7-18	0.230511
17	Livery	0.234096
18	Mesh	0.234426
19	St. Joseph Brewery & Public House	0.235605
20	Union 50	0.236809
21	Celtic Woman 2022-06-03T23:30:00	0.238880
22	Tom Segura 2022-06-11T23:00:00	0.238880
23	Wallows 2022-06-07T00:00:00	0.239258
24	Vida	0.239595
25	Bru Burger Bar	0.240722
26	Bakersfield	0.242594
27	Bazbeaux Pizza	0.242935
28	The Eagle on Mass Ave	0.243102
29	Iaria's Italian Restaurant	0.246245
30	Fogo de Chao Brazilian Steakhouse	0.248224
31	Milktooth	0.249304
32	The Capital Grille	0.249706
33	Tastings A Wine Experience	0.249966
34	Bluebeard	0.250099
35	The Oceanaire Seafood Room	0.250373
36	Tony's of Indianapolis	0.250633
37	Nada	0.250773
38	Ruth's Chris Steak House	0.251053
39	Yolk - City Way	0.251177
40	Yard House	0.251336
41	St. Elmo Steak House	0.252205
42	Harry and Izzy's	0.252559
43	Slippery Noodle Inn	0.253983
44	Conner's Kitchen + Bar	0.254060

45	APIC Annual Conference	0.254091
46	Bosphorus Istanbul Cafe	0.254494
47	OP Italian	0.255116
48	High Velocity	0.255831
49	Tedeschi Trucks Band with Gabe Dixon and St. Paul & The ...	0.258530
50	Barenaked Ladies (Rescheduled from 7/5/2020, 7/2/2021) 2...	0.258530
51	5 Seconds of Summer with The Band Camino 2022-07-15T23:0...	0.258530
52	Shapiro's Delicatessen	0.258779
53	Greek Islands Restaurant INC	0.259616
54	Iozzo's Garden of Italy	0.260511
55	Long's Bakery	0.262538
56	Indianapolis 500 Legends Day 2022-05-28T14:00:00	0.284000
57	Indianapolis 500 2022-05-29T16:45:00	0.284000
58	The Tamale Place	0.313431
59	Brozinni Pizzeria	0.336363
60	The Library Restaurant and Pub	0.339994
61	Burger Theory at the Holiday Inn Indianapolis Airport	0.419581

In [10]:

```

IndustriousDict = {}
IndustriousLat = 39.772380233351356
IndustriousLon = -86.15310153064928
header = ["Events", "Distance"]
for event, loc in eventDict.items():
    IndustriousDict[event] = math.sqrt((loc[0] - IndustriousLat) ** 2 + (loc[1] - IndustriousLon) ** 2)
sorted_IndustriousDict = sorted(IndustriousDict.items(), key=lambda item: item[1])
dfIndustrious = pandas.DataFrame(sorted_IndustriousDict, columns=header)
within2Industrious = 0
for field in sorted_IndustriousDict:
    if (field[1] <= .03): ##within 2ish miles
        within2Industrious += 1
print("Total viable places within 2 miles: " + str(within2Industrious))
print(dfIndustrious)

```

Total viable places within 2 miles: 40

	Events	Distance
0	Bakersfield	0.000527
1	Bazbeaux Pizza	0.000863
2	The Eagle on Mass Ave	0.001060
3	Bru Burger Bar	0.001426
4	Wallows 2022-06-07T00:00:00	0.002844
5	Celtic Woman 2022-06-03T23:30:00	0.003279
6	Tom Segura 2022-06-11T23:00:00	0.003279
7	Union 50	0.005377
8	Fogo de Chao Brazilian Steakhouse	0.006255
9	Vida	0.006376
10	The Capital Grille	0.007866
11	St. Joseph Brewery & Public House	0.007884
12	Tastings A Wine Experience	0.008211
13	Mesh	0.008238
14	The Oceanaire Seafood Room	0.008304
15	Livery	0.008730
16	Nada	0.008731
17	Tony's of Indianapolis	0.009022
18	Ruth's Chris Steak House	0.009140
19	Yard House	0.009285
20	St. Elmo Steak House	0.010183
21	Harry and Izzy's	0.010505
22	Yolk - City Way	0.010836
23	Slippery Noodle Inn	0.012062
24	APIC Annual Conference	0.012300
25	Mimi Blue Meatballs	0.012391
26	Iaria's Italian Restaurant	0.012700
27	Conner's Kitchen + Bar	0.013076
28	Milktooth	0.014788
29	OP Italian	0.015459
30	High Velocity	0.015722
31	Talbot Street Art Fair 7-18	0.016163
32	Bluebeard	0.016417
33	Shapiro's Delicatessen	0.017268

34	Greek Islands Restaurant INC	0.018216
35	Bosphorus Istanbul Cafe	0.018234
36	Tedeschi Trucks Band with Gabe Dixon and St. Paul & The ...	0.018953
37	Barenaked Ladies (Rescheduled from 7/5/2020, 7/2/2021) 2...	0.018953
38	5 Seconds of Summer with The Band Camino 2022-07-15T23:0...	0.018953
39	Iozzo's Garden of Italy	0.019258
40	Long's Bakery	0.050180
41	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.069556
42	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.069556
43	Cafe Patachou	0.070392
44	Delicia	0.075235
45	Good Morning Mama's Cafe	0.079313
46	Mama Carolla's Old Italian Restaurant	0.079477
47	Indianapolis 500 Legends Day 2022-05-28T14:00:00	0.085361
48	Indianapolis 500 2022-05-29T16:45:00	0.085361
49	The Tamale Place	0.096181
50	BRICS - Broad Ripple Ice Cream Station	0.100530
51	Fire by the Monon	0.102579
52	The Library Restaurant and Pub	0.107238
53	Information/Cybersecurity Officer/IT Officer /Operations...	0.141350
54	Seasons 52	0.146518
55	Ocean Prime	0.146835
56	Sullivan's Steakhouse	0.146989
57	Harry & Izzy's Northside	0.147520
58	Brozinni Pizzeria	0.150617
59	Caplinger's Fresh Catch	0.158861
60	Cooper's Hawk Winery & Restaurants	0.162494
61	Burger Theory at the Holiday Inn Indianapolis Airport	0.184968

In [11]:

```
LaunchDict = {}
LaunchLat = 39.7593320841315
LaunchLon = -86.15805743064958
header = ["Events", "Distance"]
for event, loc in eventDict.items():
    LaunchDict[event] = math.sqrt((loc[0] - LaunchLat) ** 2 + (loc[1] - LaunchLon) ** 2)
sorted_LaunchDict = sorted(LaunchDict.items(), key=lambda item: item[1])
dfLaunch = pandas.DataFrame(sorted_LaunchDict, columns=header)
within2Launch = 0
for field in sorted_LaunchDict:
    if (field[1] <= .03): ##within 2ish miles
        within2Launch += 1
print("Total viable places within 2 miles: " + str(within2Launch))
print(dfLaunch)
```

Total viable places within 2 miles: 40

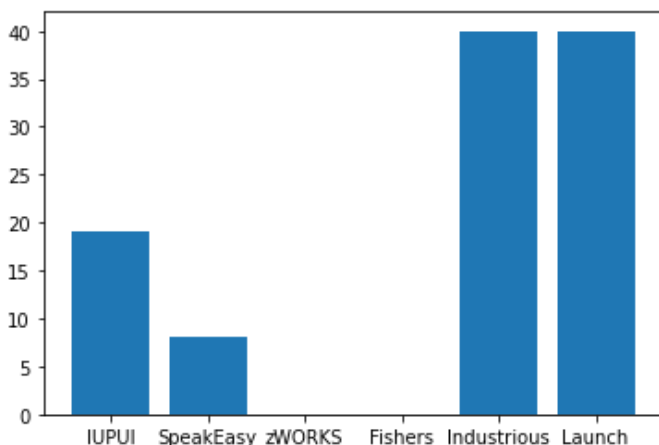
	Events	Distance
0	Slippery Noodle Inn	0.002397
1	Shapiro's Delicatessen	0.003315
2	Greek Islands Restaurant INC	0.004260
3	Yolk - City Way	0.004912
4	Harry and Izzy's	0.005310
5	Iozzo's Garden of Italy	0.005321
6	St. Elmo Steak House	0.005851
7	Yard House	0.006092
8	The Oceanaire Seafood Room	0.006516
9	Nada	0.006555
10	APIC Annual Conference	0.006635
11	Ruth's Chris Steak House	0.007100
12	Fogo de Chao Brazilian Steakhouse	0.007750
13	The Capital Grille	0.008154
14	Tastings A Wine Experience	0.008242
15	Tony's of Indianapolis	0.008288
16	Conner's Kitchen + Bar	0.009272
17	Bosphorus Istanbul Cafe	0.009979
18	Milktooth	0.011361
19	High Velocity	0.011620
20	Bluebeard	0.012230
21	OP Italian	0.012326
22	Iaria's Italian Restaurant	0.012655
23	The Eagle on Mass Ave	0.013047

24	Bazbeaux Pizza	0.013133
25	Bakersfield	0.013435
26	Tedeschi Trucks Band with Gabe Dixon and St. Paul & The ...	0.013805
27	Barenaked Ladies (Rescheduled from 7/5/2020, 7/2/2021) 2...	0.013805
28	5 Seconds of Summer with The Band Camino 2022-07-15T23:0...	0.013805
29	Bru Burger Bar	0.015155
30	Vida	0.016110
31	Wallows 2022-06-07T00:00:00	0.016597
32	Celtic Woman 2022-06-03T23:30:00	0.016902
33	Tom Segura 2022-06-11T23:00:00	0.016902
34	Union 50	0.018892
35	St. Joseph Brewery & Public House	0.019951
36	Mesh	0.021111
37	Livery	0.021436
38	Mimi Blue Meatballs	0.025091
39	Talbot Street Art Fair 7-18	0.029281
40	Long's Bakery	0.051386
41	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.081461
42	Indianapolis Chamber Orchestra - Indianapolis 2022-05-22...	0.081461
43	Cafe Patachou	0.083513
44	Indianapolis 500 Legends Day 2022-05-28T14:00:00	0.085249
45	Indianapolis 500 2022-05-29T16:45:00	0.085249
46	Delicia	0.088787
47	The Tamale Place	0.091176
48	Good Morning Mama's Cafe	0.092998
49	Mama Carolla's Old Italian Restaurant	0.093179
50	The Library Restaurant and Pub	0.097790
51	BRICS - Broad Ripple Ice Cream Station	0.114094
52	Fire by the Monon	0.116101
53	Brozinni Pizzeria	0.141717
54	Information/Cybersecurity Officer/IT Officer /Operations...	0.155221
55	Seasons 52	0.160436
56	Ocean Prime	0.160784
57	Sullivan's Steakhouse	0.160916
58	Harry & Izzy's Northside	0.161468
59	Caplinger's Fresh Catch	0.171945
60	Burger Theory at the Holiday Inn Indianapolis Airport	0.174092
61	Cooper's Hawk Winery & Restaurants	0.176441

In [12]:

```
height = [within2IUPUI, within2SpeakEasy, within2zWORKS, within2Fishers, within2Industri
ous, within2Launch]
bars = ('IUPUI', 'SpeakEasy', 'zWORKS', 'Fishers', 'Industrious', 'Launch')
y_pos = numpy.arange(len(bars))

matplotlib.pyplot.bar(y_pos, height)
matplotlib.pyplot.xticks(y_pos, bars)
matplotlib.pyplot.show()
```

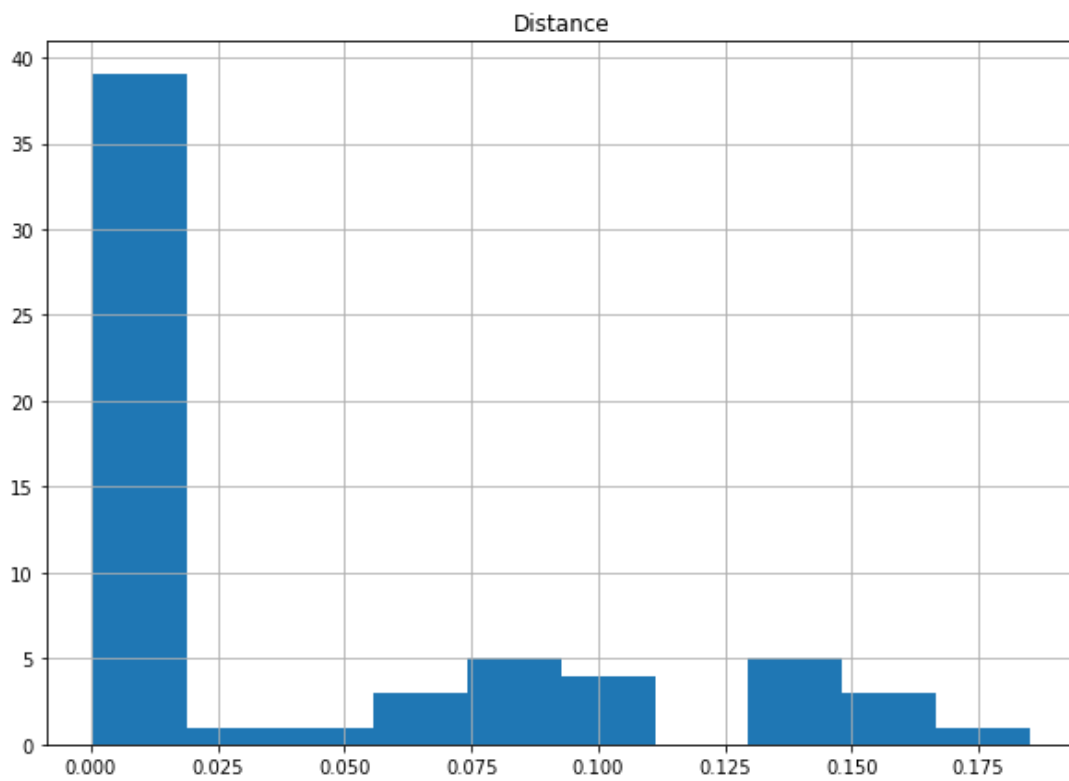


In [13]:

```
dfIndustrious.hist(column = "Distance", figsize = [10,7])
```

Out[13]:

```
array([[<AxesSubplot:title={'center':'Distance'}>]], dtype=object)
```

In [14]:

```
dfLaunch.hist(column = "Distance", figsize = [10,7])
```

Out[14]:

```
array([[<AxesSubplot:title={'center':'Distance'}>]], dtype=object)
```

