

```

import pandas as pd
import plotly.express as px
import plotly.graph_objects as go

dataframe = pd.read_csv("LakeCounty_Health.csv")

dataframe.drop(['Shape__Area', 'Shape__Length'], axis=1)

```

	OBJECTID	NAME	Obesity
0	1	Texas	32.4
1	2	California	24.2
2	3	Kentucky	34.6
3	4	Georgia	30.7
4	5	Wisconsin	30.7
5	6	Oregon	30.1
6	7	Virginia	29.2
7	8	Tennessee	33.8
8	9	Louisiana	36.2
9	10	New York	25.0
10	11	Michigan	31.2
11	12	Idaho	28.6
12	13	Florida	26.8
13	14	Alaska	29.8
14	15	Montana	23.6
15	16	Minnesota	26.1
16	17	Nebraska	31.4
17	18	Washington	26.4
18	19	Ohio	29.8
19	20	Illinois	30.8
20	21	Missouri	32.4
21	22	Iowa	32.1
22	23	South Dakota	30.4
23	24	Arkansas	34.5
24	25	Mississippi	35.6
25	26	Colorado	20.2
26	27	North Carolina	30.1
27	28	Utah	24.5
28	29	Oklahoma	33.9
29	30	Wyoming	29.0
30	31	West Virginia	35.6
31	32	Indiana	31.3
32	33	Massachusetts	24.3
33	34	Nevada	26.7
34	35	Connecticut	25.3
35	36	District of Columbia	22.1
36	37	Rhode Island	26.0
37	38	Alabama	35.6
38	39	Puerto Rico	29.5
39	40	South Carolina	31.7
40	41	Maine	30.0

41	42	Hawaii	22.7
42	43	Arizona	28.4
43	44	New Mexico	28.8
44	45	Maryland	28.9
45	46	Delaware	29.7
46	47	Pennsylvania	30.0
47	48	Kansas	34.2
48	49	Vermont	25.1
49	50	New Jersey	25.6
50	51	North Dakota	31.0
51	52	New Hampshire	26.3

```
obesity_mean_geral_rate = dataframe[['Obesity']].mean()
```

```
northeast_states = [
    "Maine", "Massachusetts", "New Hampshire", "Rhode Island",
    "Vermont"
]
northeast = dataframe[dataframe['NAME'].isin(northeast_states)]
northeast.drop(['Shape__Area', 'Shape__Length'], axis=1)
```

	OBJECTID	NAME	Obesity
32	33	Massachusetts	24.3
36	37	Rhode Island	26.0
40	41	Maine	30.0
48	49	Vermont	25.1
51	52	New Hampshire	26.3

```
northeast_mean_rate = northeast[['Obesity']].mean()
northeast_mean_rate
```

```
Obesity    26.34
dtype: float64
```

```
midwest_states = [
    "Indiana", "Iowa", "Kansas", "Michigan", "Minnesota", "Missouri",
    "Nebraska", "North Dakota", "Ohio", "South Dakota", "Wisconsin"
]
```

```
midwest = dataframe[dataframe['NAME'].isin(midwest_states)]
midwest_mean_rate = midwest[['Obesity']].mean()
midwest_mean_rate
```

```
Obesity    30.963636
dtype: float64
```

```
south_states = [
    "Alabama", "Arkansas", "Delaware", "Florida", "Georgia",
    "Kentucky",
```

```

    "Louisiana", "Maryland", "Mississippi", "North Carolina",
    "Oklahoma",
    "South Carolina", "Tennessee", "Texas", "Virginia", "West
    Virginia"
]

south = dataframe[dataframe['NAME'].isin(south_states)]
south_mean_rate = south[['Obesity']].mean()
south_mean_rate

Obesity    32.45625
dtype: float64

mountain_states = [
    "Colorado", "Idaho", "Montana", "Nevada", "New Mexico", "Utah",
    "Wyoming"
]

mountain = dataframe[dataframe['NAME'].isin(mountain_states)]
mountain_mean_rate = south[['Obesity']].mean()
mountain_mean_rate

Obesity    32.45625
dtype: float64

pacific_islands_states = [
    "Guam", "American Samoa", "Northern Mariana Islands", "Wake
    Island"
]

pacific_islands =
dataframe[dataframe['NAME'].isin(pacific_islands_states)]
pacific_islands_mean_rate = south[['Obesity']].mean()
pacific_islands_rate

Obesity    32.45625
dtype: float64

regional_divisions = ["Northeast", "Midwest", "South", "Mountain
States", "Pacific Islands"]

mean_values = [
    float(northeast_mean_rate.iloc[0]),
    float(midwest_mean_rate.iloc[0]),
    float(south_mean_rate.iloc[0]),
    float(mountain_mean_rate.iloc[0]),
    float(pacific_islands_mean_rate.iloc[0])
]

```

```

fig1 = px.bar(x=regional_divisions, y=mean_values)
fig1.update_yaxes(title="Tax of Obesity")
fig1.update_xaxes(title="Regions")

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```

```

fig2 = go.Figure(data=[go.Pie(labels=regional_divisions,
values=mean_values, pull=[0, 0, 0, 0.1, 0.1])])

```

```

fig2.update_yaxes(title="Tax of Obesity")

```

```
fig2.update_xaxes(title="Regions")
fig2.show()
```

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The regions of *Pacific islands* and *Montains States* needs more attention, because these regions have less states and they have the greatest of obesity of allover the USA. The *South Region* have the same rate, however is the region with most people and states.

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fig1.show()
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