Data Visualization Using Python

Importing packages

In [63]:
```
import pandas as pd
import seaborn as sns
import numpy as np
import matplotlib.pyplot as plt
```

Reading csv file

In [64]:
```
df =pd.read_csv("D:\Downloads\diabetes.csv")
```

Importing 20 Coloumns from Data Sets

In [65]:
```
df.head(20)
```

Out[65]:

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age
0	6	148	72	35	0	33.6	0.627	50
1	1	85	66	29	0	26.6	0.351	31
2	8	183	64	0	0	23.3	0.672	32
3	1	89	66	23	94	28.1	0.167	21
4	0	137	40	35	168	43.1	2.288	33
5	5	116	74	0	0	25.6	0.201	30
6	3	78	50	32	88	31.0	0.248	26
7	10	115	0	0	0	35.3	0.134	29
8	2	197	70	45	543	30.5	0.158	53
9	8	125	96	0	0	0.0	0.232	54
10	4	110	92	0	0	37.6	0.191	30
11	10	168	74	0	0	38.0	0.537	34
12	10	139	80	0	0	27.1	1.441	57
13	1	189	60	23	846	30.1	0.398	59
14	5	166	72	19	175	25.8	0.587	51
15	7	100	0	0	0	30.0	0.484	32
16	0	118	84	47	230	45.8	0.551	31
17	7	107	74	0	0	29.6	0.254	31
18	1	103	30	38	83	43.3	0.183	33

Extracting the attributes used for comparison

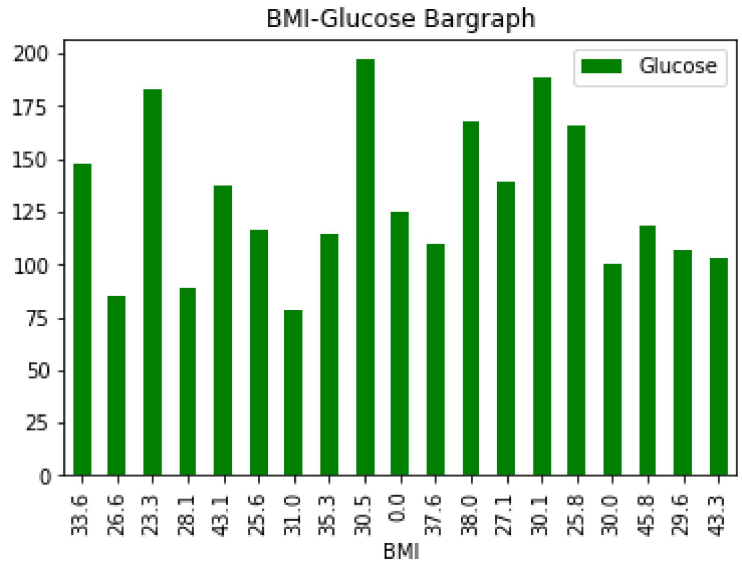
In [66]:
```
subDf=df[["BMI","Glucose"]]
subDf
```

Out[66]:

	BMI	Glucose
0	33.6	148
1	26.6	85
2	23.3	183
3	28.1	89
4	43.1	137
5	25.6	116
6	31.0	78
7	35.3	115
8	30.5	197
9	0.0	125
10	37.6	110
11	38.0	168
12	27.1	139
13	30.1	189
14	25.8	166
15	30.0	100
16	45.8	118
17	29.6	107
18	43.3	103

Ploting the BMI-Glucose graph

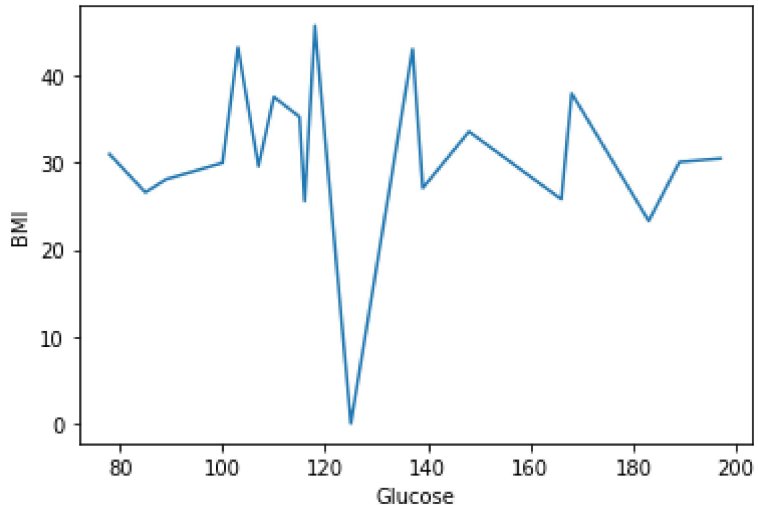
In [72]:
```
hj=df.plot.bar(x='BMI',y='Glucose',title='BMI-Glucose Bargraph',color="green")
```



Plotting the BMI-Glucose line graph

In [76]:
```
sns.lineplot(y="BMI",x="Glucose",data=df)
```

Out[76]:
```
<AxesSubplot:xlabel='Glucose', ylabel='BMI'>
```



Inference

From the graph we can see that their is no much relation between BMI and Glucose