FOOD_HN

January 15, 2021

1 Report

[1]:
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

[ ]:
```

```

[2]:
```
# Parameters
filename = "FOOD_HN.csv"
```

[3]:
```
data = pd.read_csv(filename)
data.fillna(0)
data = data.loc[:, data.columns != "Name"]
data = data.apply(lambda x: x.replace('--','0').replace('_._','0'))
data = data.astype(float)
```

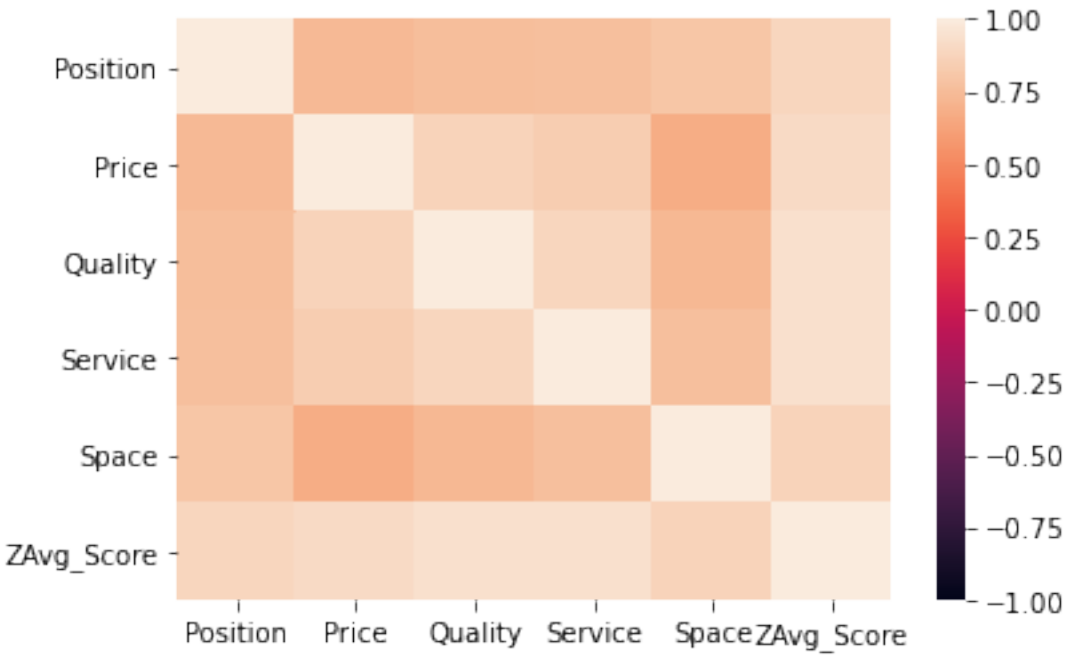
[4]:
```
df_corr_table = pd.DataFrame()
df_corr_table = data.corr()
df_corr_table.round(3).fillna(0)
```

[4]:

	Position	Price	Quality	Service	Space	ZAvg_Score
Position	1.000	0.735	0.762	0.769	0.797	0.886
Price	0.735	1.000	0.867	0.836	0.673	0.908
Quality	0.762	0.867	1.000	0.887	0.732	0.939
Service	0.769	0.836	0.887	1.000	0.773	0.941
Space	0.797	0.673	0.732	0.773	1.000	0.870
ZAvg_Score	0.886	0.908	0.939	0.941	0.870	1.000

[5]:
```
sns.heatmap(df_corr_table, vmin=-1, vmax=1)
```

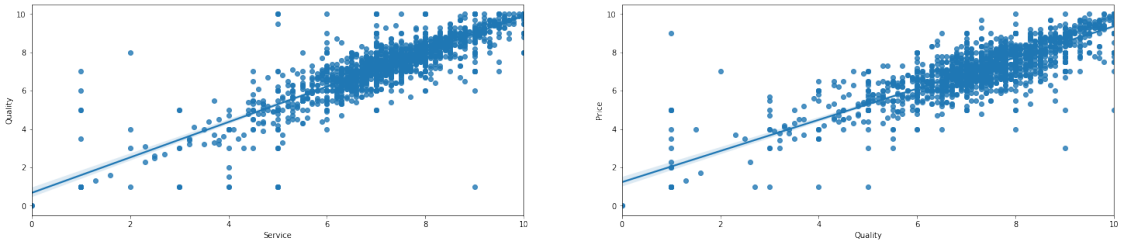
[5]:
```
<AxesSubplot:>
```



1.1 Most Correlation

[6]:
```
fig, axis = plt.subplots(nrows = 1, ncols= 2, figsize=(25,5))
plt.subplots_adjust(wspace = 0.20)

sns.regplot(x="Service", y="Quality", data=data, ax = axis[0])
sns.regplot(x="Quality", y="Price", data=data, ax = axis[1])
```

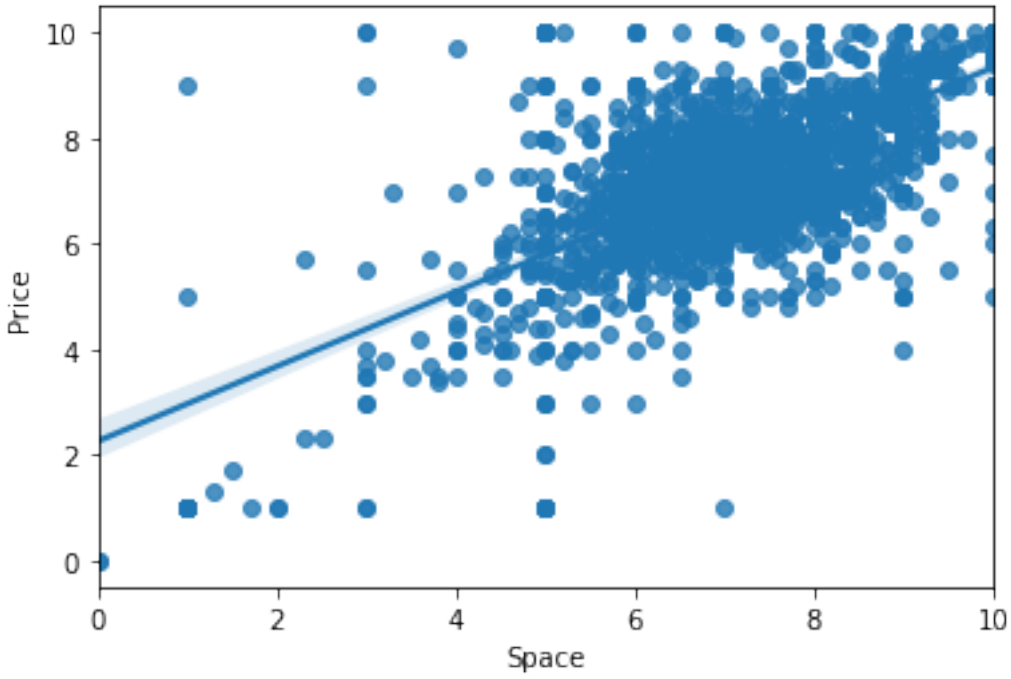
[6]:
```
<AxesSubplot:xlabel='Quality', ylabel='Price'>
```



1.2 Least Correlation

[7]:
```
sns.regplot(x="Space", y="Price", data=data)
```

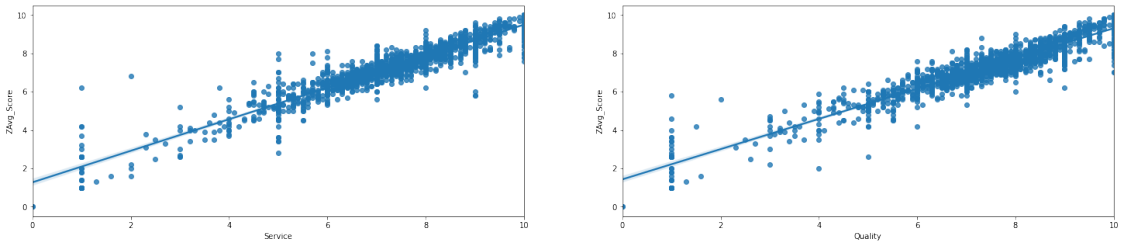
[7]:
```
<AxesSubplot:xlabel='Space', ylabel='Price'>
```



1.3 Factor affect Average Score

1.3.1 Most affect

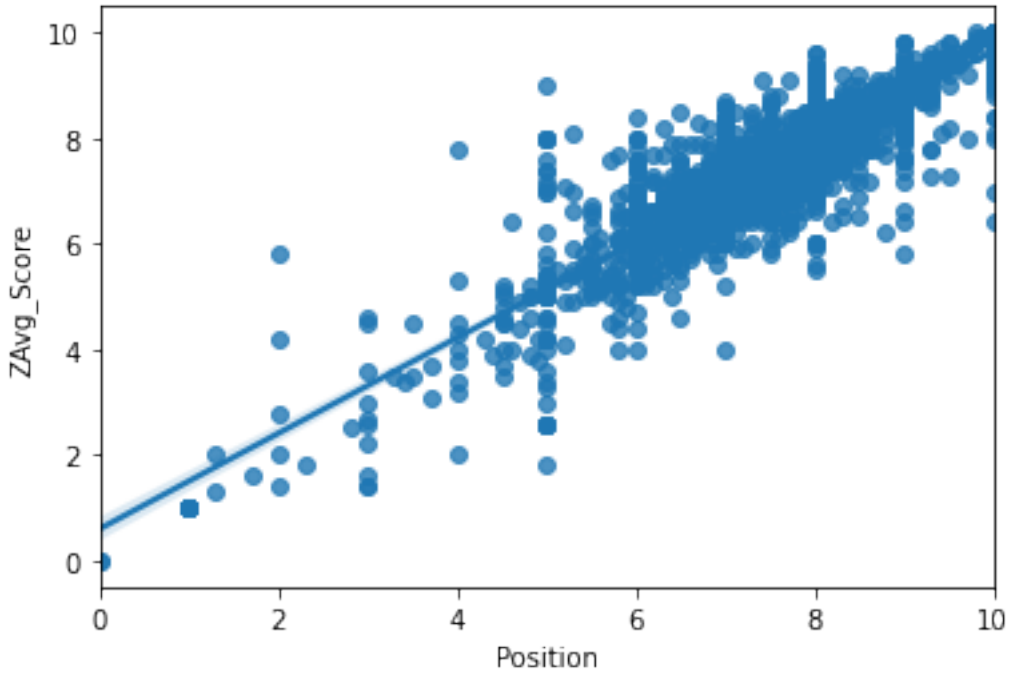
[8]:
```
fig, axis = plt.subplots(nrows = 1, ncols= 2, figsize=(25,5))
plt.subplots_adjust(wspace = 0.20)

ax = sns.regplot(x="Service", y="ZAvg_Score", data=data, ax = axis[0])
ax = sns.regplot(x="Quality", y="ZAvg_Score", data=data, ax = axis[1])
```



1.3.2 Least affect

[9]:
```
sns.regplot(x="Position", y="ZAvg_Score", data=data)
```

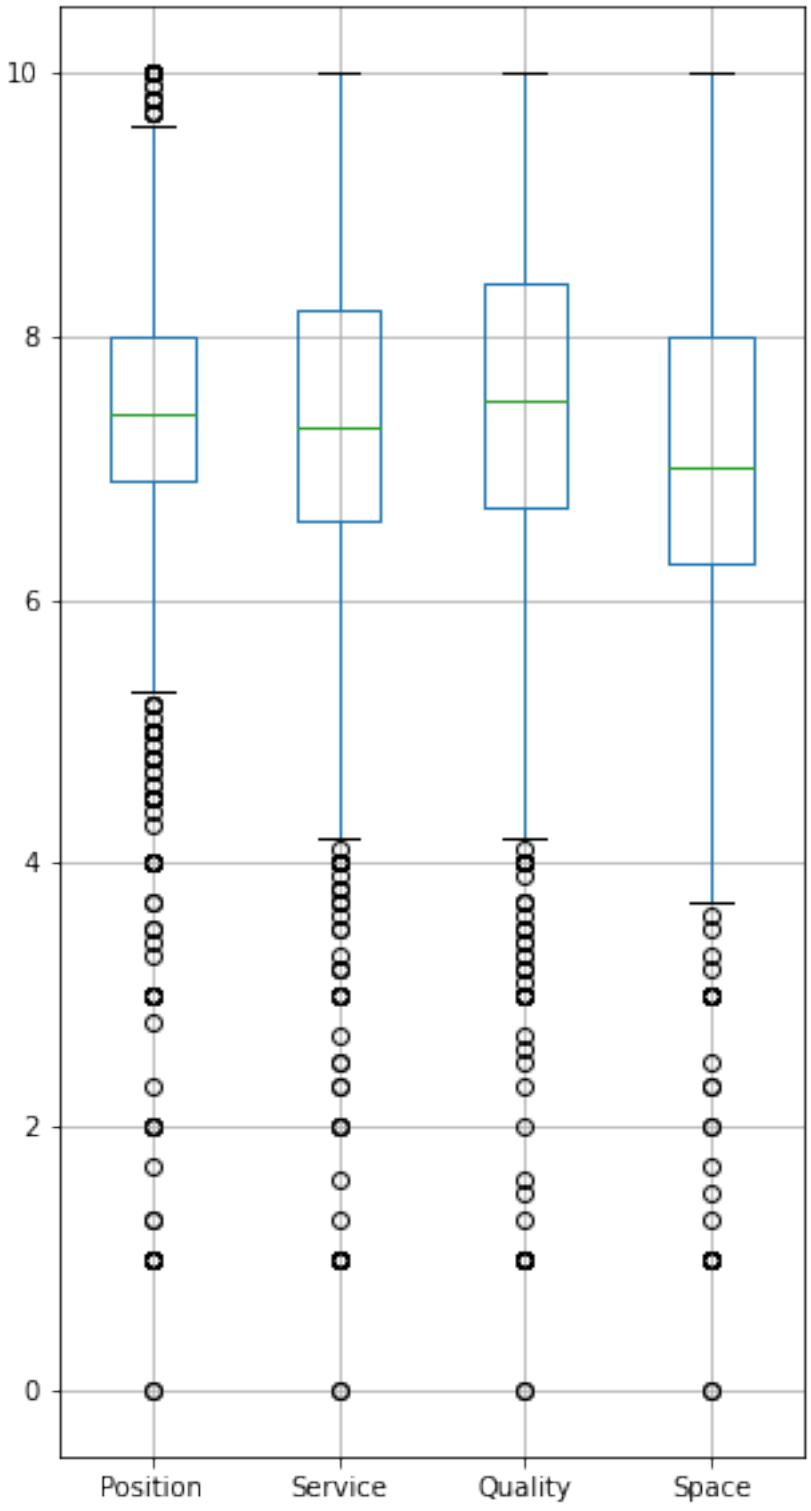
[9]:
```
<AxesSubplot:xlabel='Position', ylabel='ZAvg_Score'>
```



1.4 Box plot

[10]:
```
data.boxplot(column =['Position','Service','Quality','Space'], figsize=(5,10))
```

[10]: <AxesSubplot:>


10
8
6
4
2
0
Position
Service
Quality
Space