

```
In [1]: import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
from sklearn.preprocessing import scale
```

```
In [2]: var=pd.read_csv('C://Users/Gopi/Desktop/machine learning/csv files/mba.csv')
```

```
In [31]: var.describe()
```

Out[31]:

	Datasrno	workex	gmat
count	773.00000	773.00000	773.000000
mean	387.00000	57.50194	711.164295
std	223.29017	27.38682	29.339714
min	1.00000	9.00000	600.000000
25%	194.00000	41.00000	690.000000
50%	387.00000	52.00000	710.000000
75%	580.00000	69.00000	730.000000
max	773.00000	279.00000	780.000000

```
In [45]: var.shape
```

Out[45]: (773, 3)

```
In [35]: var.describe().transpose()
```

Out[35]:

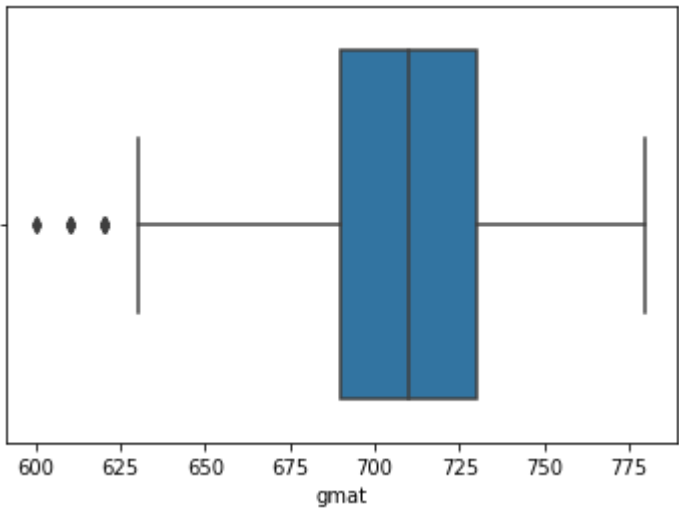
	count	mean	std	min	25%	50%	75%	max
Datasrno	773.0	387.000000	223.290170	1.0	194.0	387.0	580.0	773.0
workex	773.0	57.501940	27.386820	9.0	41.0	52.0	69.0	279.0
gmat	773.0	711.164295	29.339714	600.0	690.0	710.0	730.0	780.0

```
In [36]: ranges= max(var['workex'])-min(var['workex'])
ranges
```

Out[36]: 270

```
In [42]: sns.boxplot(var['gmat'])
```

Out[42]: <matplotlib.axes.\_subplots.AxesSubplot at 0xb88d748>



```
In [11]: q1=var['gmat'].quantile(0.25)
q1
```

Out[11]: 690.0

```
In [12]: q3=var['gmat'].quantile(0.75)
q3
```

Out[12]: 730.0

```
In [13]: iqr=q3-q1
iqr
```

Out[13]: 40.0

```
In [14]: low=q1-(1.5*iqr)
low
```

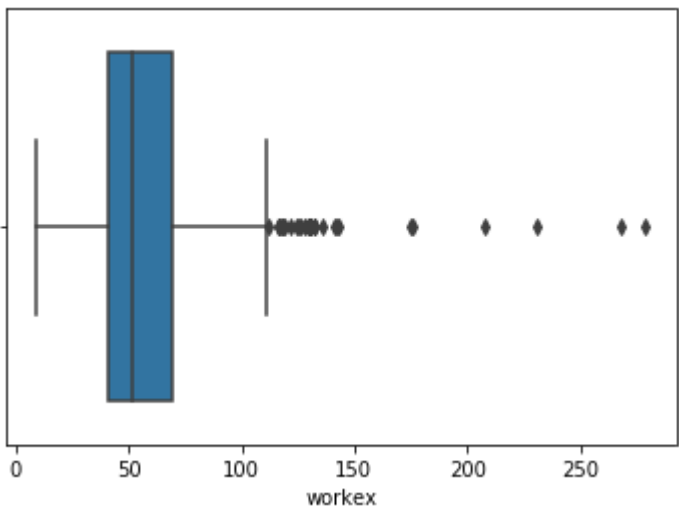
Out[14]: 630.0

```
In [15]: high=q3-(1.5*iqr)
high
```

Out[15]: 670.0

```
In [41]: sns.boxplot(var['workex'])
```

Out[41]: <matplotlib.axes.\_subplots.AxesSubplot at 0xb81f4c8>



```
In [3]: q11=var['workex'].quantile(0.25)
q11
```

Out[3]: 41.0

```
In [4]: q33=var['workex'].quantile(0.75)
q33
```

Out[4]: 69.0

```
In [5]: iqr1=q33-q11
iqr1
```

Out[5]: 28.0

```
In [6]: low1=q11-(1.5*iqr1)
low1
```

Out[6]: -1.0

```
In [7]: high1=q33-(1.5*iqr1)
high1
```

Out[7]: 27.0

```
In [17]: var1 = var.loc[(var['gmat'] > low) & (var['gmat'] < high)]
var1.head()
```

Out[17]:

Datasrno	workex	gmat
1	2	107
5	6	136
6	7	70
12	13	72
20	21	175

```
In [18]: var1.shape
```

Out[18]: (37, 3)

```
In [19]: var.shape
```

Out[19]: (773, 3)