

First Step to read data from the file

import libraries

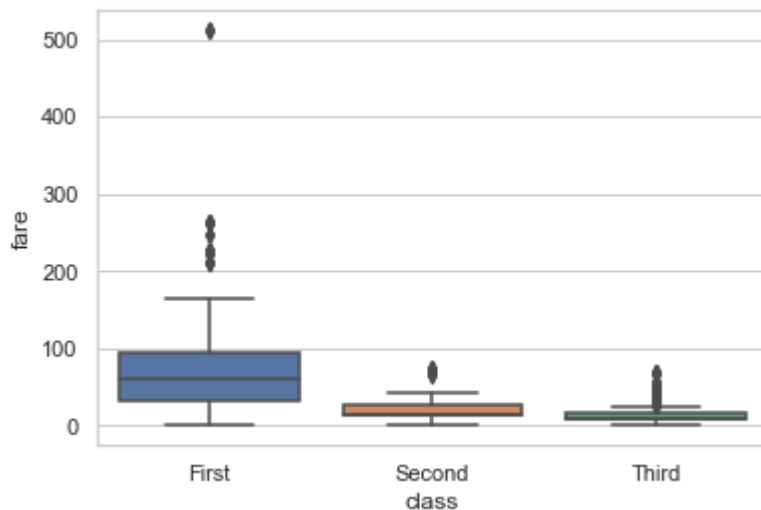
- import pandas
- import seaborn
- import matplotlib

This is General Example

```
In [7]: import seaborn
#Canvas Balloon Board
seaborn.set(style="whitegrid")

day4=seaborn.load_dataset("titanic")
seaborn.boxplot(x="class", y="fare",data=day4)
```

```
Out[7]: <AxesSubplot:xlabel='class', ylabel='fare'>
```



```
In [8]: import seaborn
#Canvas Balloon Board
seaborn.set(style="whitegrid")

tip=seaborn.load_dataset("tips")
tip
```

```
Out[8]:
```

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

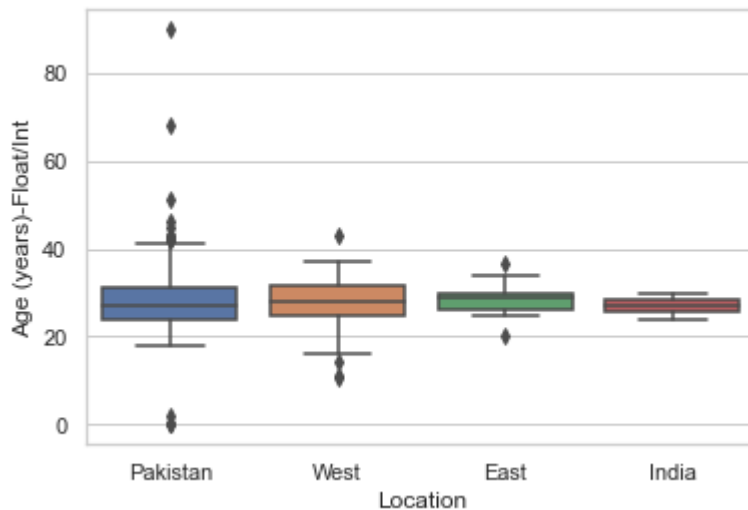
	total_bill	tip	sex	smoker	day	time	size
...
239	29.03	5.92	Male	No	Sat	Dinner	3
240	27.18	2.00	Female	Yes	Sat	Dinner	2
241	22.67	2.00	Male	Yes	Sat	Dinner	2
242	17.82	1.75	Male	No	Sat	Dinner	2
243	18.78	3.00	Female	No	Thur	Dinner	2

244 rows × 7 columns

Now write code for my data set and then read to plot boxplot

```
In [21]: import seaborn
seaborn.set(style="whitegrid")
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
day4
seaborn.boxplot(x="Location",y="Age (years)-Float/Int",data=day4)
```

```
Out[21]: <AxesSubplot:xlabel='Location', ylabel='Age (years)-Float/Int'>
```

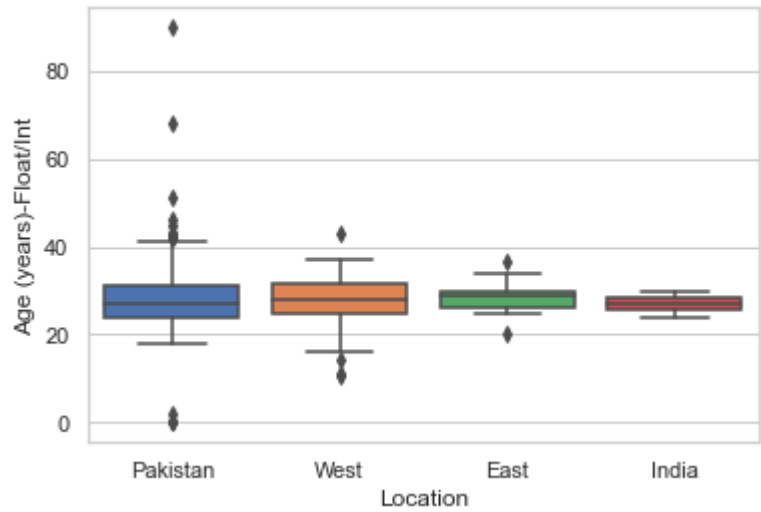


Add Saturation

```
In [27]: import seaborn

seaborn.set(style="whitegrid")
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(x="Location",y="Age (years)-Float/Int",data=day4, saturation=5)
```

```
Out[27]: <AxesSubplot:xlabel='Location', ylabel='Age (years)-Float/Int'>
```



My Data set

```
In [30]: import seaborn as sns
import pandas as pd
import numpy as np

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
day4
#seaborn.boxplot(x="Location",y="Age (years)-Float/Int",data=day4, saturation=5)
```

Out[30]:

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blc grc
0	Male	Pakistan	36-40	Masters	Natural Sciences	to boost my skill set	Unemployed	
1	Male	Pakistan	26-30	Bachelors	CS/IT	to boost my skill set	Student	
2	Male	Pakistan	31-35	Masters	Enginnering	Switch my field of study	Employed	
3	Female	Pakistan	31-35	Masters	CS/IT	to boost my skill set	Employed	
4	Female	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Student	
...
370	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
371	Male	Pakistan	31-35	Bachelors	Enginnering	to boost my skill set	Employed	

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blc grc
372	Male	Pakistan	21-25	Bachelors	CS/IT	to boost my skill set	Employed	
373	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
374	Female	Pakistan	31-35	Masters	Mathematics	Switch my field of study	Unemployed	

375 rows × 23 columns

Describe data in this section

In [31]:

```
day4.describe()
```

Out[31]:

	Age (years)- Float/Int	Your Weight in kg? (float)	Height in cm? Freelancer- (Float)	How many hours you code a day? (int) e.g: 5,4,3	Light kitni der band hti hy? int
count	375.000000	375.000000	375.000000	375.000000	375.000000
mean	27.576933	69.321147	162.679282	2.976027	3.618667
std	7.224460	16.264434	172.246844	2.088115	7.407986
min	0.000000	7.000000	0.000000	0.000000	0.000000
25%	24.000000	58.050000	158.000000	2.000000	0.000000
50%	27.000000	68.300000	169.000000	3.000000	2.000000
75%	31.000000	78.500000	175.225000	4.000000	4.000000
max	90.000000	161.000000	1661.160000	18.000000	72.000000

X-Axis Boxplot

In [32]:

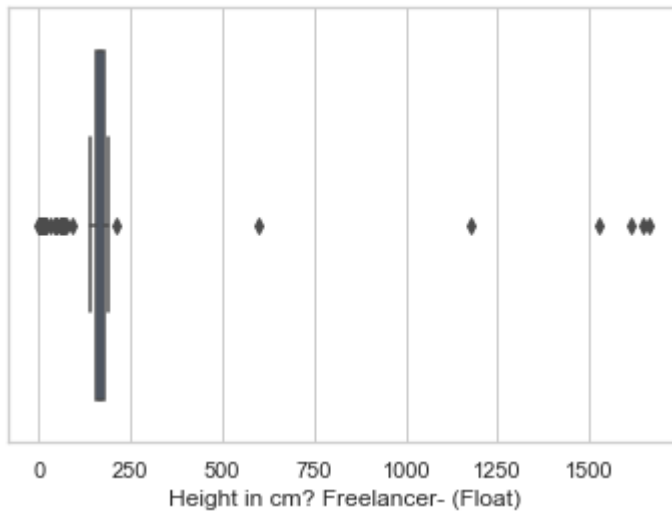
```
# importing the required module
import seaborn as sns

# use to set style of background of plot
seaborn.set(style="whitegrid")

#Loading data set
```

```
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(x=day4['Height in cm? Freelancer- (Float)'])
```

Out[32]: <AxesSubplot:xlabel='Height in cm? Freelancer- (Float)'\>



Y-Axis Boxplot

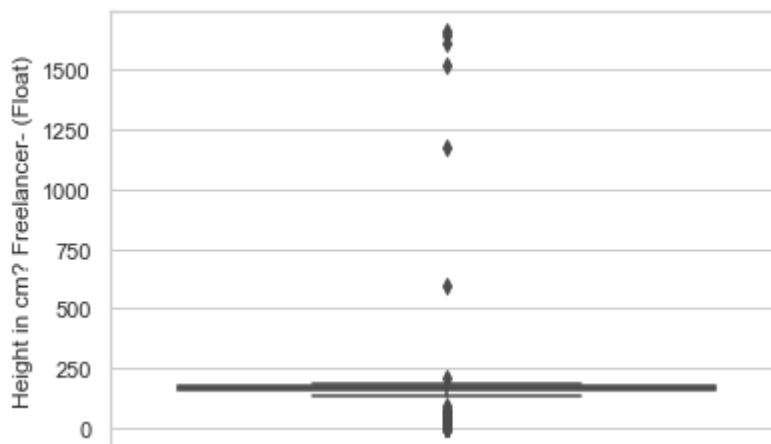
```
In [33]: import seaborn as sns

# use to set style of background of plot
seaborn.set(style="whitegrid")

#loading data set

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(y=day4['Height in cm? Freelancer- (Float)'])
```

Out[33]: <AxesSubplot:ylabel='Height in cm? Freelancer- (Float)'\>



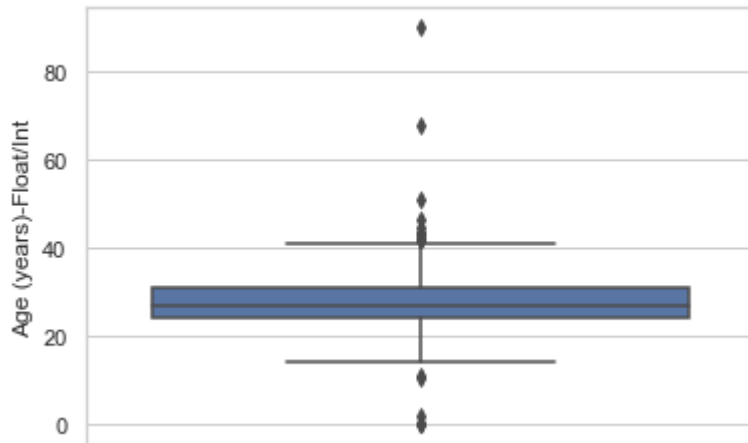
```
In [36]: import seaborn as sns

# use to set style of background of plot
seaborn.set(style="whitegrid")

#loading data set
```

```
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(y=day4['Age (years)-Float/Int'])
```

Out[36]: <AxesSubplot:ylabel='Age (years)-Float/Int'>



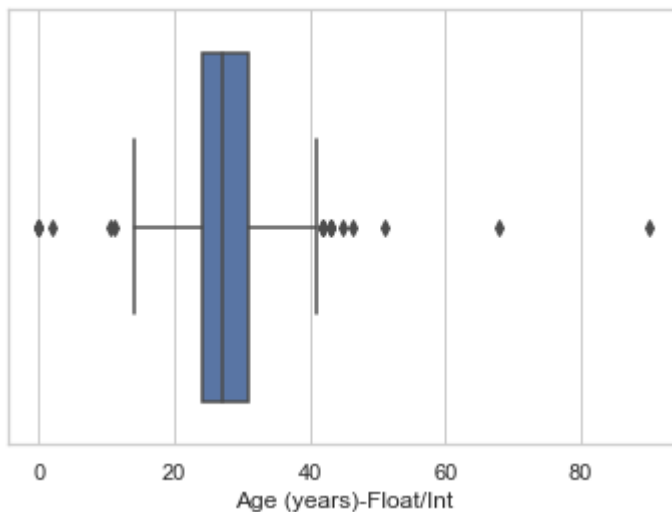
```
In [37]: import seaborn as sns

# use to set style of background of plot
seaborn.set(style="whitegrid")

#loading data set

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(x=day4['Age (years)-Float/Int'])
```

Out[37]: <AxesSubplot:xlabel='Age (years)-Float/Int'>



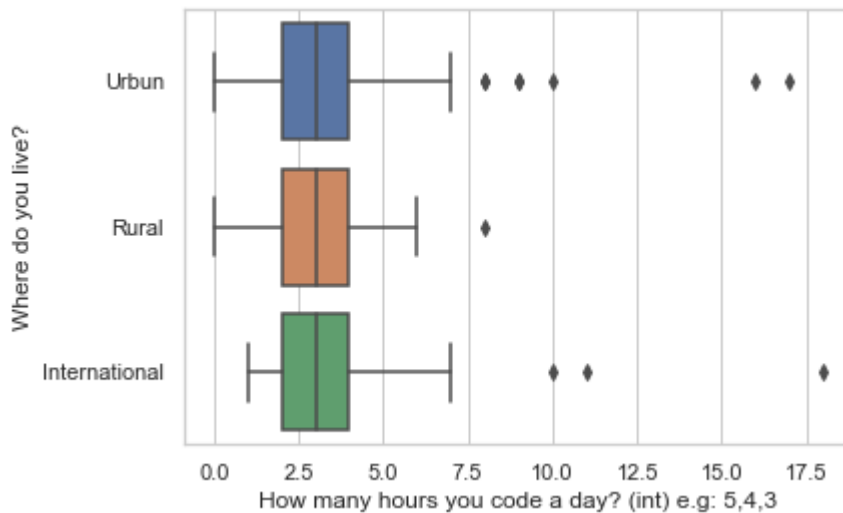
```
In [39]: import seaborn as sns

# use to set style of background of plot
sns.set(style="whitegrid")

#loading data set
```

```
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
sns.boxplot(x="How many hours you code a day? (int) e.g: 5,4,3", y="Where do you live?"
```

Out[39]: <AxesSubplot:xlabel='How many hours you code a day? (int) e.g: 5,4,3', ylabel='Where do you live?'



Add Hue element

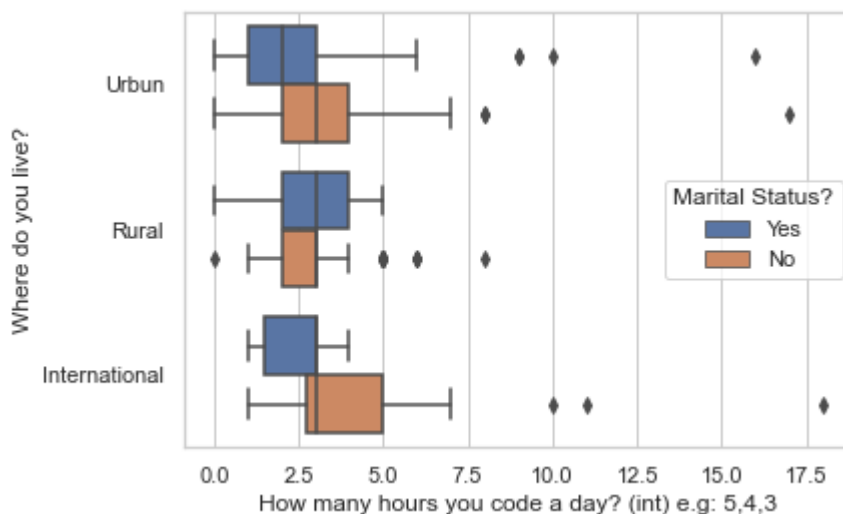
```
In [40]: import seaborn as sns

# use to set style of background of plot
sns.set(style="whitegrid")

#loading data set

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
sns.boxplot(x="How many hours you code a day? (int) e.g: 5,4,3", y="Where do you live?"
```

Out[40]: <AxesSubplot:xlabel='How many hours you code a day? (int) e.g: 5,4,3', ylabel='Where do you live?'



Add Palette Element

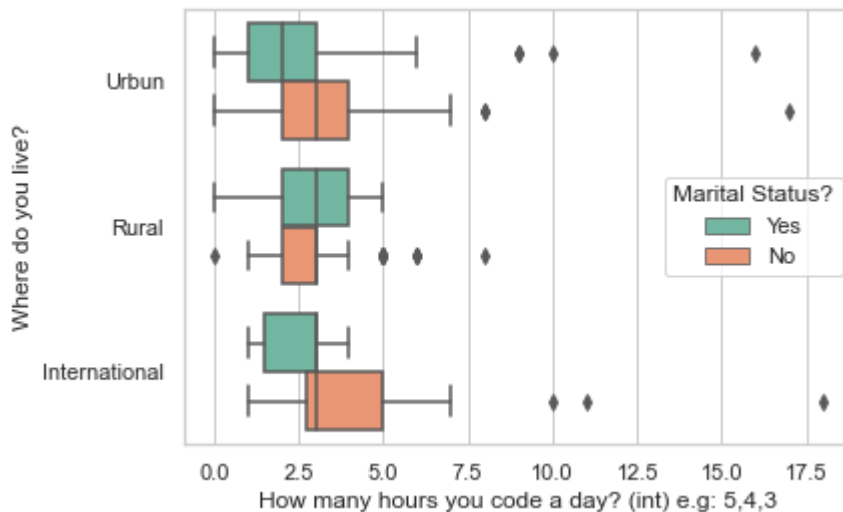
```
In [41]: import seaborn as sns
```

```
# use to set style of background of plot
sns.set(style="whitegrid")

#Loading data set

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
sns.boxplot(x="How many hours you code a day? (int) e.g: 5,4,3", y="Where do you live?"
            hue="Marital Status?",palette="Set2", data=day4)
```

Out[41]: <AxesSubplot:xlabel='How many hours you code a day? (int) e.g: 5,4,3', ylabel='Where do you live?'



Add Dodge

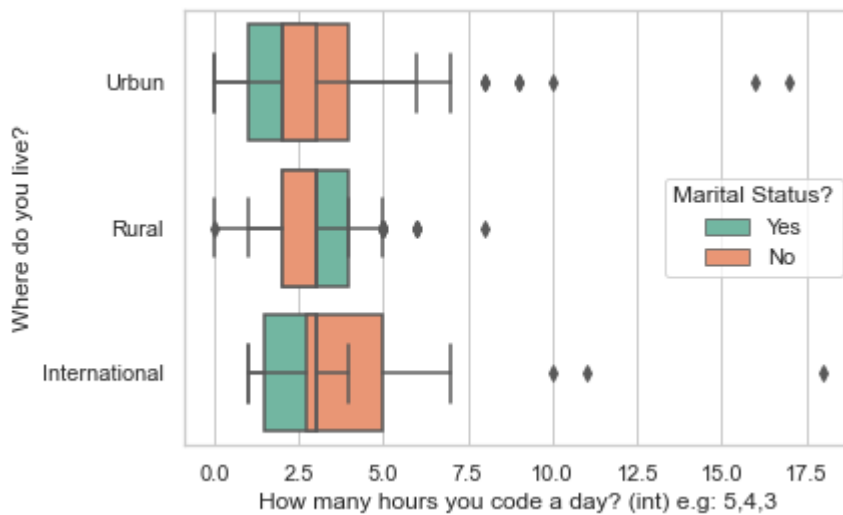
```
In [42]: import seaborn as sns

# use to set style of background of plot
sns.set(style="whitegrid")

#Loading data set

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
sns.boxplot(x="How many hours you code a day? (int) e.g: 5,4,3", y="Where do you live?"
            hue="Marital Status?",palette="Set2", dodge=False, data=day4)
```

Out[42]: <AxesSubplot:xlabel='How many hours you code a day? (int) e.g: 5,4,3', ylabel='Where do you live?'



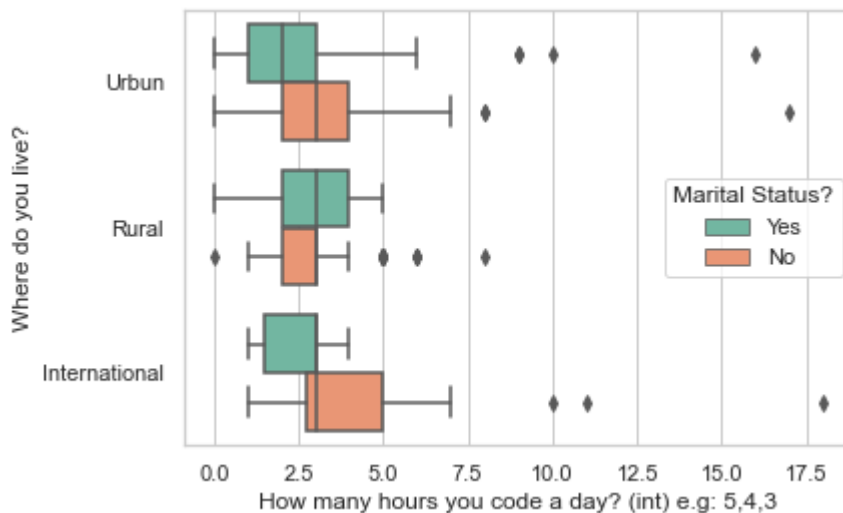
```
In [43]: import seaborn as sns

# use to set style of background of plot
sns.set(style="whitegrid")

#loading data set

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
sns.boxplot(x="How many hours you code a day? (int) e.g: 5,4,3", y="Where do you live?"
            hue="Marital Status?",palette="Set2", dodge=True, data=day4)
```

Out[43]: <AxesSubplot:xlabel='How many hours you code a day? (int) e.g: 5,4,3', ylabel='Where do you live?>



Add Orientation Element

```
In [44]: import seaborn as sns

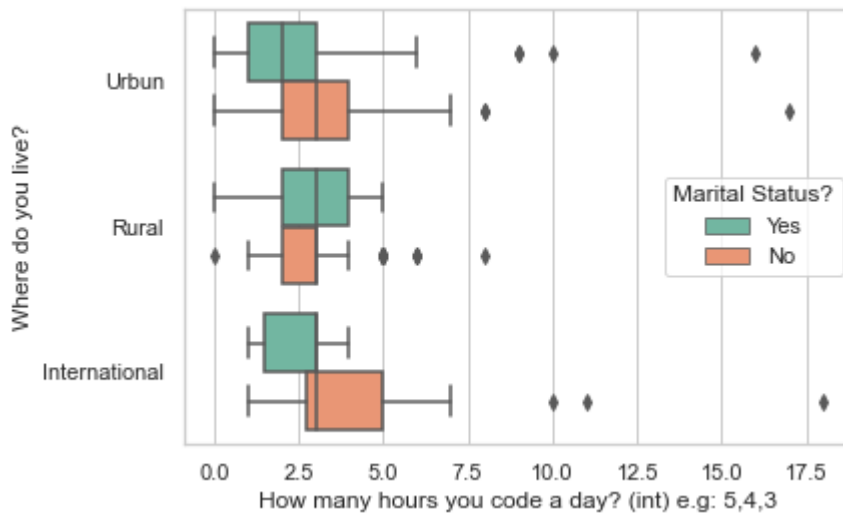
# use to set style of background of plot
sns.set(style="whitegrid")

#loading data set

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
```

```
sns.boxplot(x="How many hours you code a day? (int) e.g: 5,4,3", y="Where do you live?"
            hue="Marital Status?", palette="Set2", dodge=True, orient="h", data=day4)
```

Out[44]: <AxesSubplot:xlabel='How many hours you code a day? (int) e.g: 5,4,3', ylabel='Where do you live?'>

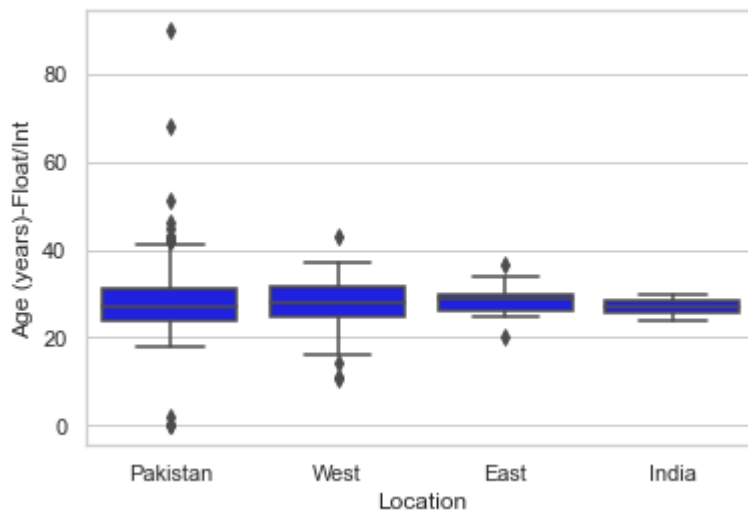


Add Color Element

```
In [45]: import seaborn

seaborn.set(style="whitegrid")
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(x="Location",y="Age (years)-Float/Int",data=day4, color="blue")
```

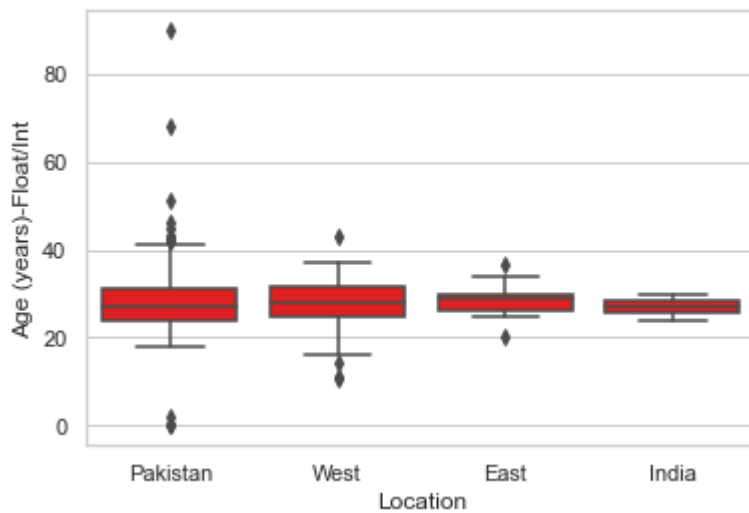
Out[45]: <AxesSubplot:xlabel='Location', ylabel='Age (years)-Float/Int'>



```
In [46]: import seaborn

seaborn.set(style="whitegrid")
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(x="Location",y="Age (years)-Float/Int",data=day4, color="red")
```

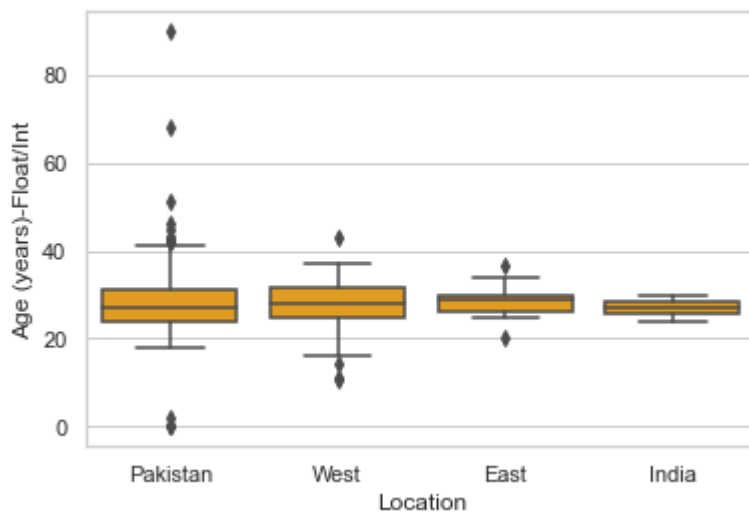
Out[46]: <AxesSubplot:xlabel='Location', ylabel='Age (years)-Float/Int'>



```
In [47]: import seaborn

seaborn.set(style="whitegrid")
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(x="Location",y="Age (years)-Float/Int",data=day4, color="orange")
```

```
Out[47]: <AxesSubplot:xlabel='Location', ylabel='Age (years)-Float/Int'>
```

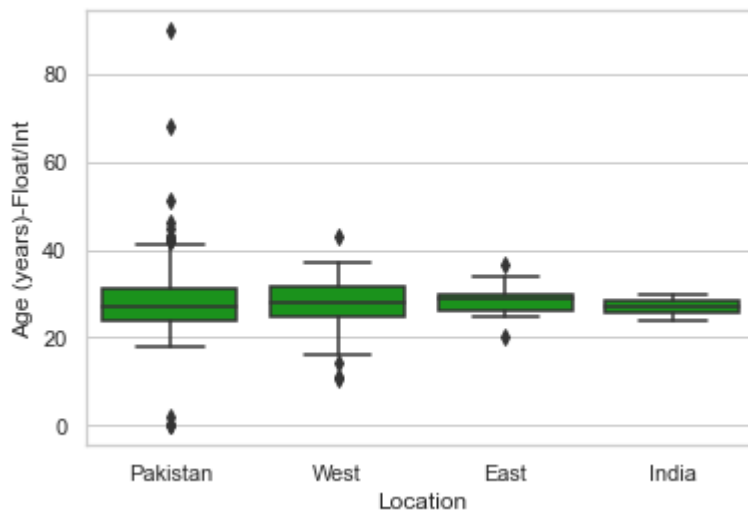


Add Color Using Color Picker

```
In [48]: import seaborn

seaborn.set(style="whitegrid")
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(x="Location",y="Age (years)-Float/Int",data=day4, color="#07a609")
```

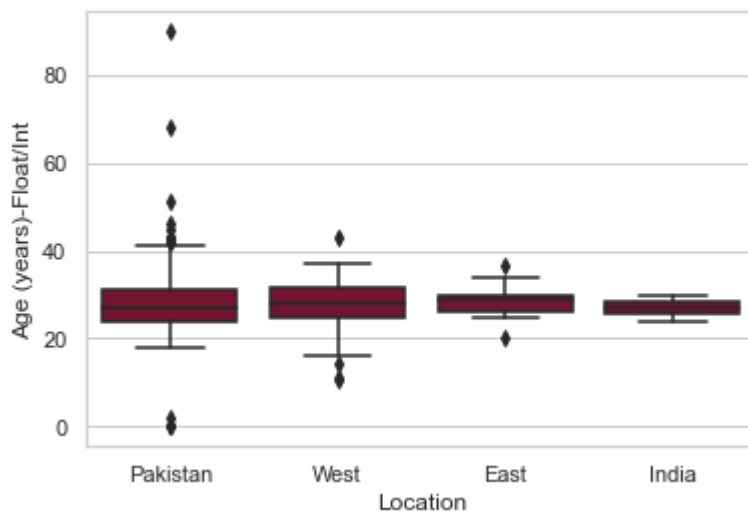
```
Out[48]: <AxesSubplot:xlabel='Location', ylabel='Age (years)-Float/Int'>
```



```
In [49]: import seaborn

seaborn.set(style="whitegrid")
day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
seaborn.boxplot(x="Location",y="Age (years)-Float/Int",data=day4, color="#82052b")
```

```
Out[49]: <AxesSubplot:xlabel='Location', ylabel='Age (years)-Float/Int'>
```



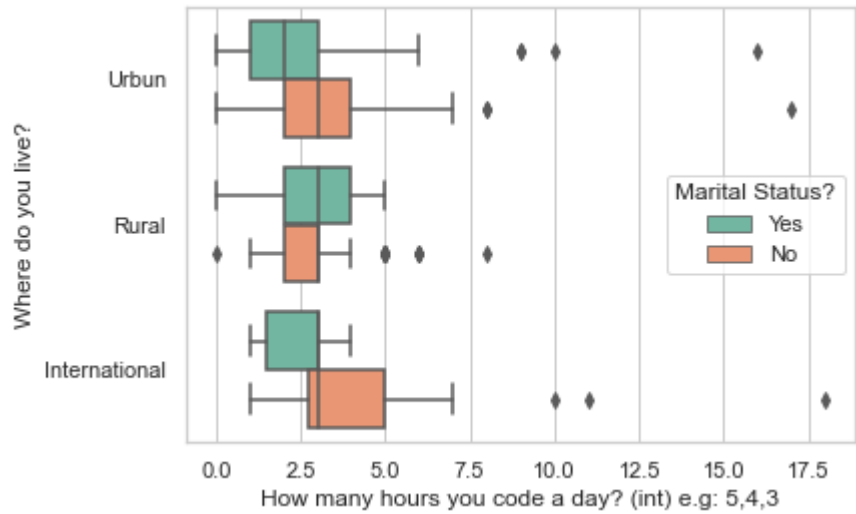
```
In [52]: import seaborn as sns

# use to set style of background of plot
sns.set(style="whitegrid")

#loading data set

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
sns.boxplot(x="How many hours you code a day? (int) e.g: 5,4,3", y="Where do you live?"
            hue="Marital Status?",palette="Set2", dodge=True, orient="h", data=day4)
```

```
Out[52]: <AxesSubplot:xlabel='How many hours you code a day? (int) e.g: 5,4,3', ylabel='Where do you live?'>
```



Read only 4 values

```
In [54]: import seaborn as sns
import pandas as pd
import numpy as np

day4=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
day4.head()
```

Out[54]:

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blood group
0	Male	Pakistan	36-40	Masters	Natural Sciences	to boost my skill set	Unemployed	B+
1	Male	Pakistan	26-30	Bachelors	CS/IT	to boost my skill set	Student	B+
2	Male	Pakistan	31-35	Masters	Enginnering	Switch my field of study	Employed	B+
3	Female	Pakistan	31-35	Masters	CS/IT	to boost my skill set	Employed	O+
4	Female	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Student	A

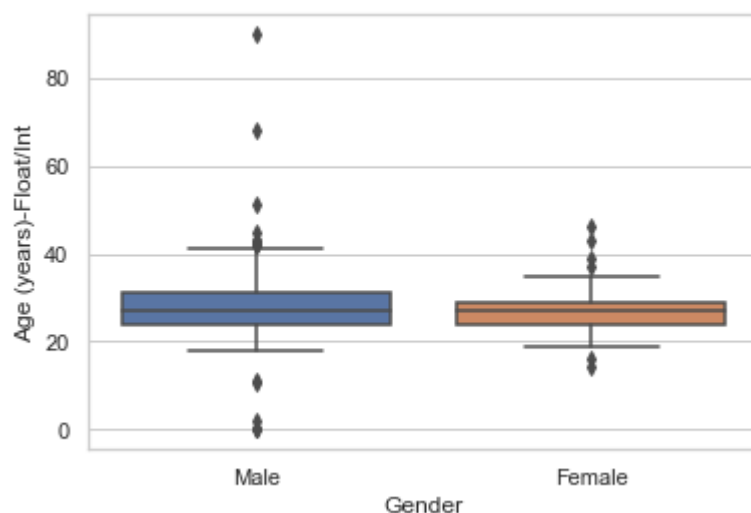
5 rows × 23 columns

```
In [57]: import seaborn as sns
import pandas as pd
```

```
import numpy as np

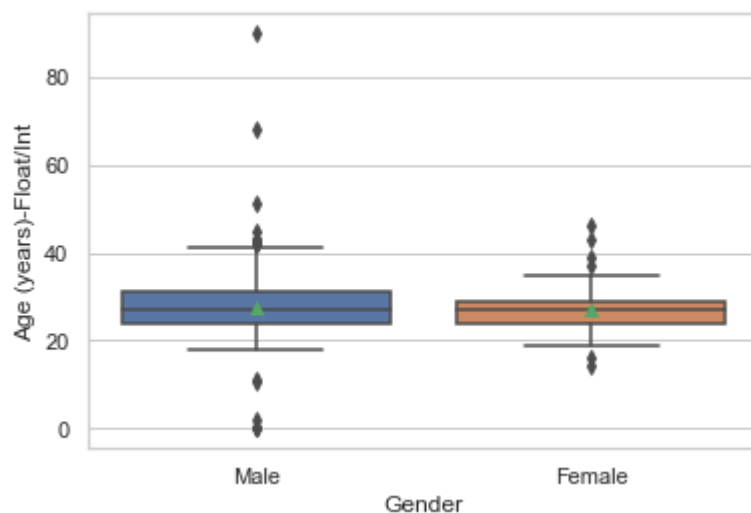
sns.boxplot(x="Gender", y="Age (years)-Float/Int", data=day4)
```

Out[57]: <AxesSubplot:xlabel='Gender', ylabel='Age (years)-Float/Int'>

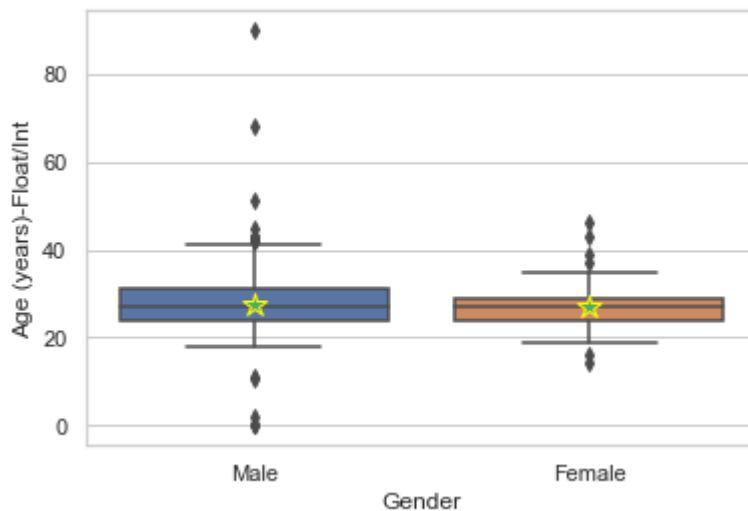


Add Showmeans Element

In [60]: `p1=sns.boxplot(x="Gender", y="Age (years)-Float/Int", showmeans=True, data=day4)`



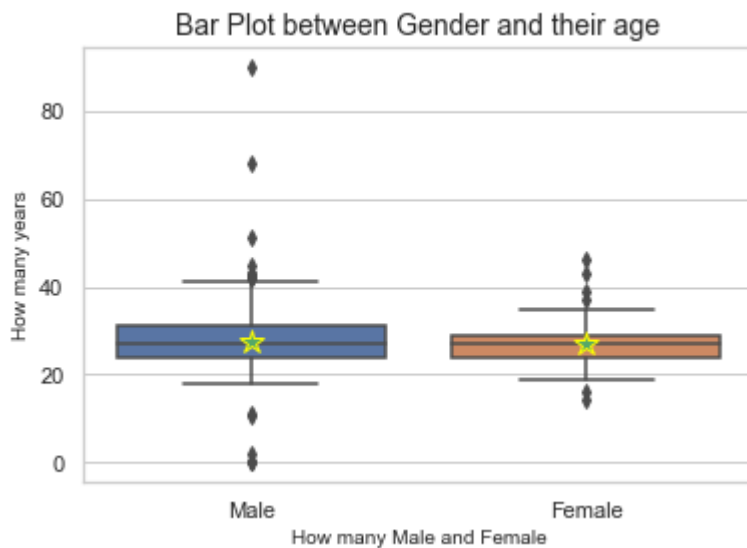
In [64]: `p1=sns.boxplot(x="Gender", y="Age (years)-Float/Int", showmeans=True, meanprops={"marker": "circle", "color": "green", "size": 100})`



Show Labels

```
In [67]: import matplotlib.pyplot as plt
p1=sns.boxplot(x="Gender", y="Age (years)-Float/Int", showmeans=True,
               meanprops={"marker": "*", "markersize": "12", "markeredgecolor": "yellow"},
               data=day4)
plt.xlabel("How many Male and Female", size=10),
plt.ylabel("How many years", size=10),
plt.title("Bar Plot between Gender and their age", size=14)
```

Out[67]: Text(0.5, 1.0, 'Bar Plot between Gender and their age')



```
In [75]: import matplotlib.pyplot as plt
p1=sns.boxplot(x="Gender", y="Age (years)-Float/Int", showmeans=True,
               meanprops={"marker": "*", "markersize": "12", "markeredgecolor": "yellow"},
               data=day4)
plt.xlabel("How many Male and Female", size=10, weight='bold'),
plt.ylabel("How many years", size=10, weight='bold'),
plt.title("Bar Plot between Gender and their age", size=14, weight='bold')
```

Out[75]: Text(0.5, 1.0, 'Bar Plot between Gender and their age')

