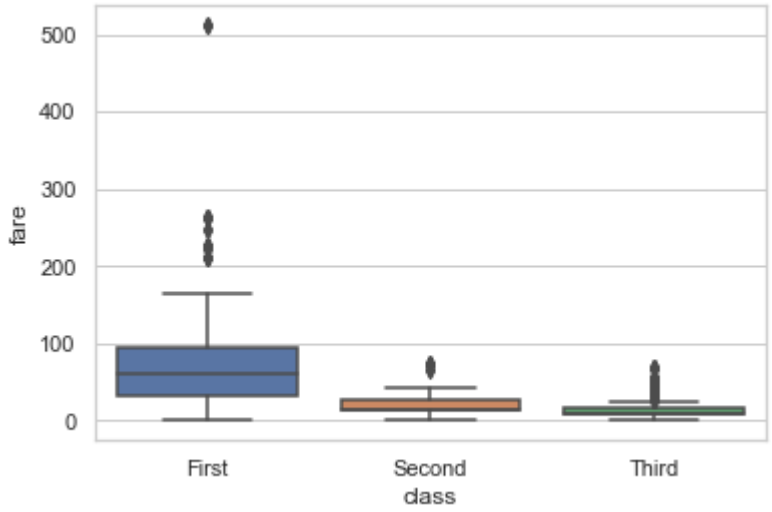
In [3]:
```
#import Library
import seaborn as sns
#canvas (Baloon Bord)
sns.set(style='whitegrid')
#Load Dataset
df_titanic=sns.load_dataset('titanic')
sns.boxplot(x='class',y='fare',data=df_titanic)
```

Out[3]: <AxesSubplot:xlabel='class', ylabel='fare'>



In [5]:
```
#import Library
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
```

Out[5]:

	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
...	...	...	...	...	...	...	...
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

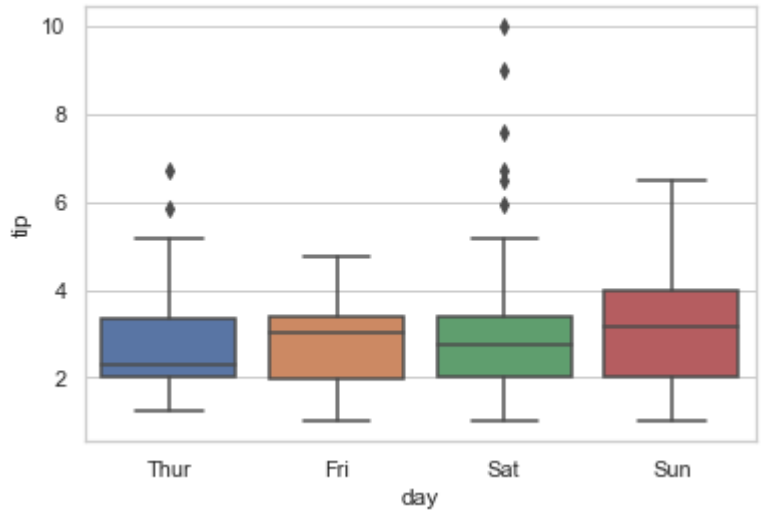
244 rows × 7 columns

In [7]:
```
#import Library
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x='day',y='tip',data=df_tip)

# The black dots are outliers
```

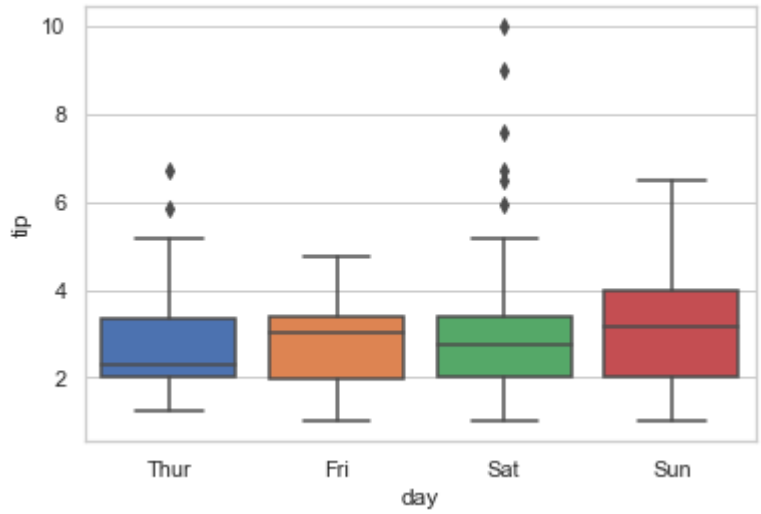
Out[7]:
```
<AxesSubplot:xlabel='day', ylabel='tip'>
```



In [8]:
```
# Boxplot with Saturation( change the value of saturation)
#import Library
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x='day',y='tip',data=df_tip,saturation=0.1)
```

Out[8]:
```
<AxesSubplot:xlabel='day', ylabel='tip'>
```



In [11]:
```
# To Describe our Data ( an important function to look insider to our data)
import seaborn as sns
import numpy as np
import pandas as pd
df_tip=sns.load_dataset('tips');
df_tip.describe()
```

Out[11]:

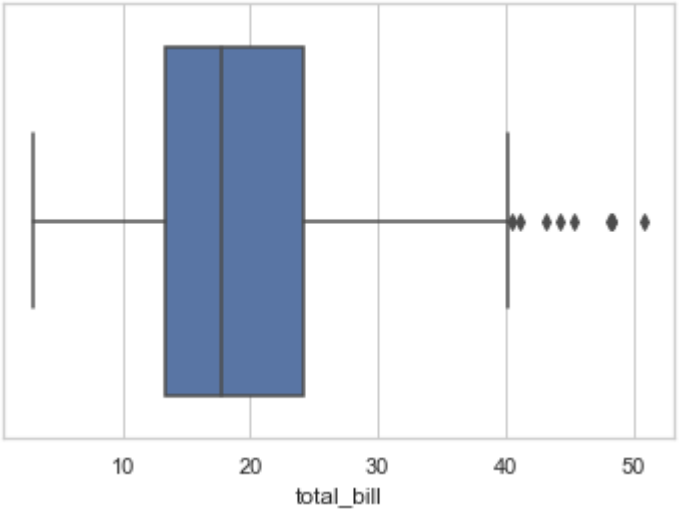
	total_bill	tip	size
count	244.000000	244.000000	244.000000
mean	19.785943	2.998279	2.569672
std	8.902412	1.383638	0.951100
min	3.070000	1.000000	1.000000
25%	13.347500	2.000000	2.000000
50%	17.795000	2.900000	2.000000
75%	24.127500	3.562500	3.000000
max	50.810000	10.000000	6.000000

In [ ]:
```
# Note Numerical data are drawn mostly on y axis
# Categorical data are mostly drawn on X-axis or Hue
# Numerical data can never be define in Hue.
```

In [16]:
```
# We can draw boxplot for a single variable in our data like totalbill in Trip da
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x=df_tip['total_bill'])
```

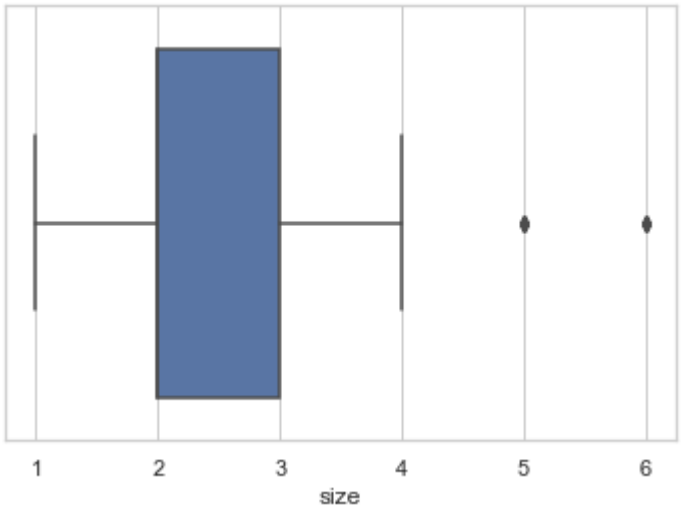
Out[16]:
```
<AxesSubplot:xlabel='total_bill'>
```



In [17]:
```
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x=df_tip['size'])
```

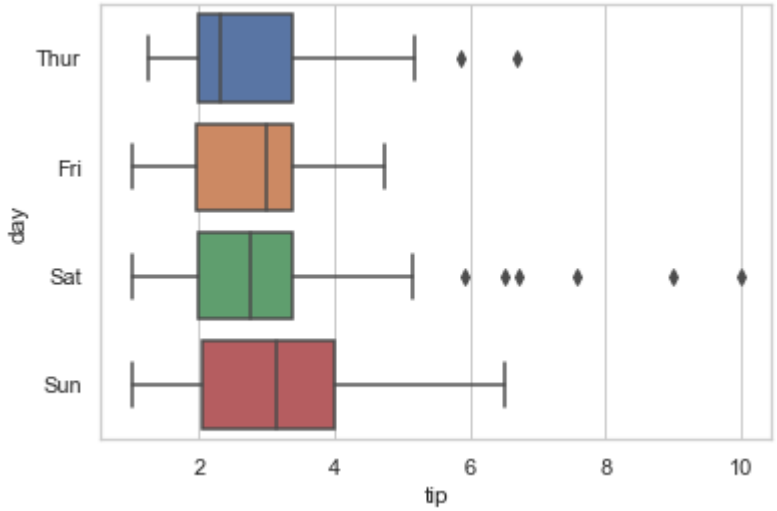
Out[17]: <AxesSubplot:xlabel='size'>



In [18]:
```
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x="tip",y='day',data=df_tip)
```

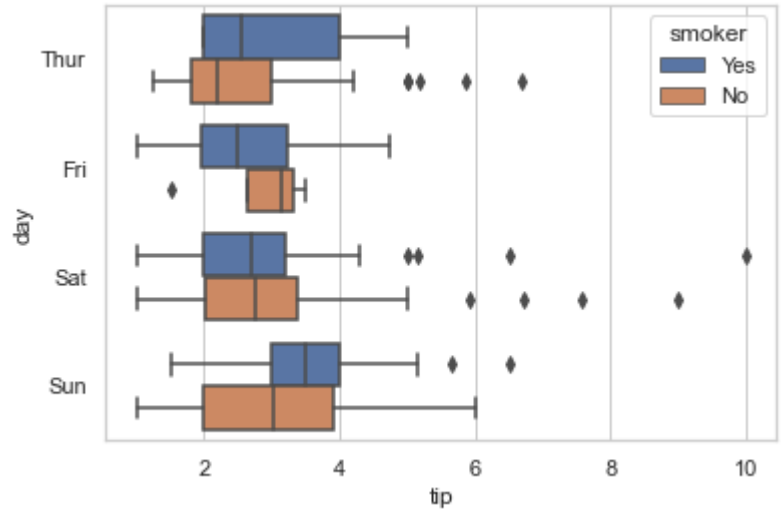
Out[18]: <AxesSubplot:xlabel='tip', ylabel='day'>



In [20]:
```
# with Hue
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x="tip",y='day',hue='smoker',data=df_tip)
```

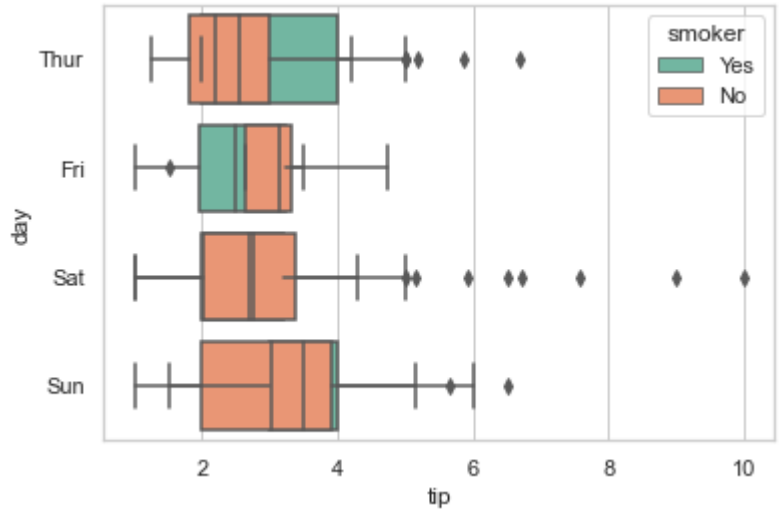
Out[20]:
```
<AxesSubplot:xlabel='tip', ylabel='day'>
```



In [24]:
```
# with Palette
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x="tip",y='day',hue='smoker',data=df_tip,palette='Set2',dodge=False)
```

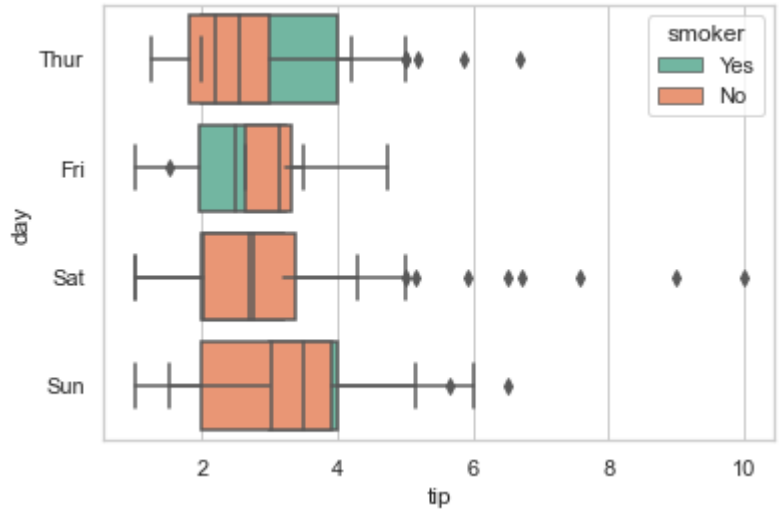
Out[24]:
```
<AxesSubplot:xlabel='tip', ylabel='day'>
```



In [25]:
```
# with dodge=False
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x="tip",y='day',hue='smoker',data=df_tip,palette='Set2',dodge=False)
```

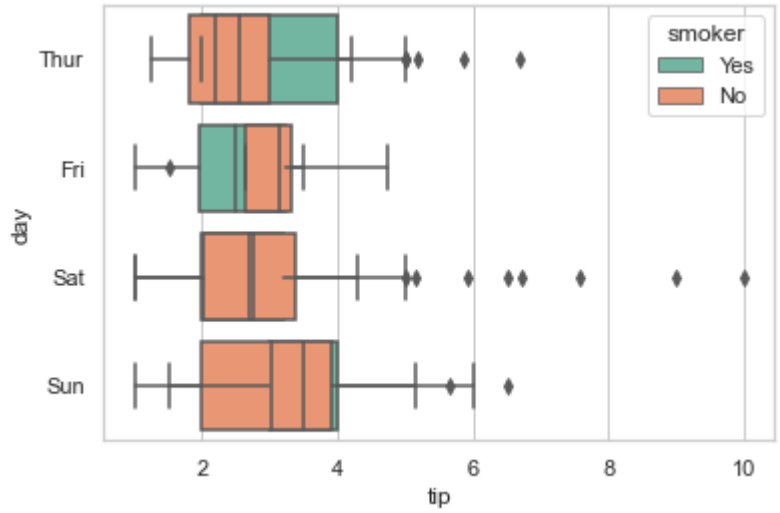
Out[25]: <AxesSubplot:xlabel='tip', ylabel='day'>



In [26]:
```
# with dodge=True
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x="tip",y='day',hue='smoker',data=df_tip,palette='Set2',dodge=False)
```

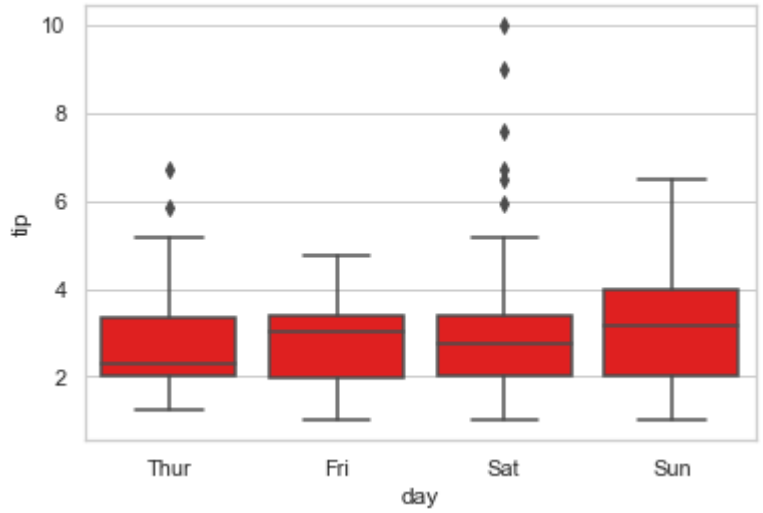
Out[26]: <AxesSubplot:xlabel='tip', ylabel='day'>



In [28]:
```
# with Color
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x='day',y='tip',data=df_tip,color='red')
```

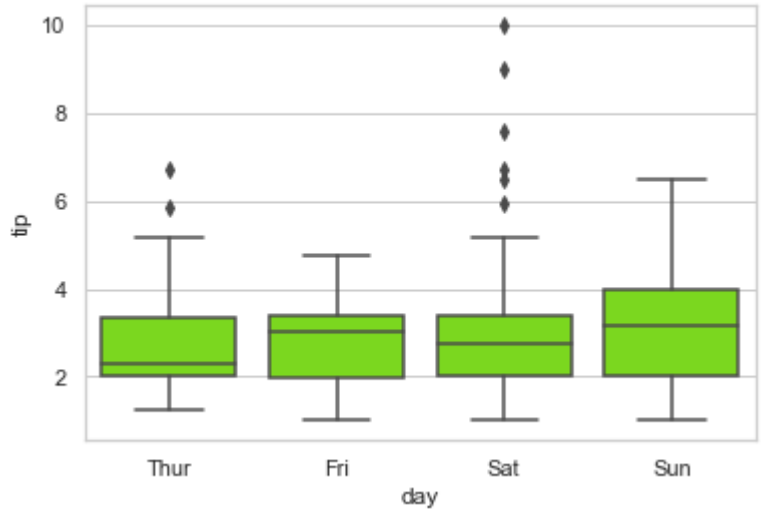
Out[28]:
```
<AxesSubplot:xlabel='day', ylabel='tip'>
```



In [29]:
```
# with  Hex-Color code
import seaborn as sns
#canvas
sns.set(style='whitegrid')

#Load Dataset
df_tip=sns.load_dataset('tips')
df_tip
# Boxplot
sns.boxplot(x='day',y='tip',data=df_tip,color='#7BF600')
```

Out[29]:
```
<AxesSubplot:xlabel='day', ylabel='tip'>
```



Costomizing Plots

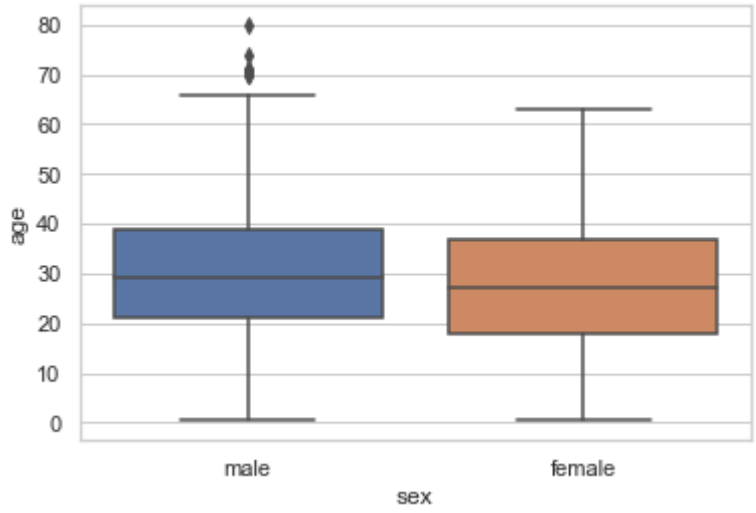
In [35]:
```
import seaborn as sns
import pandas as pd
import numpy as np
df_titanic= sns.load_dataset('titanic')
df_titanic.head()
```

Out[35]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	de
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	Na
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	Na
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	Na

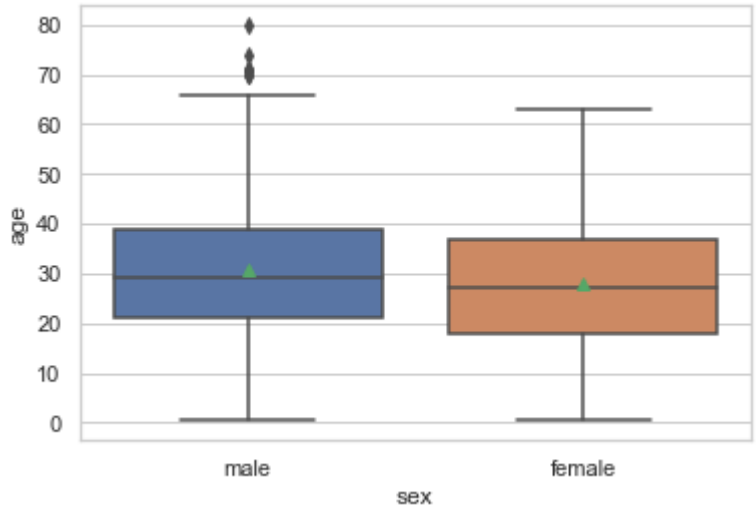
In [39]:
```
sns.boxplot(x='sex',y='age',data=df_titanic)
```

Out[39]: <AxesSubplot:xlabel='sex', ylabel='age'>



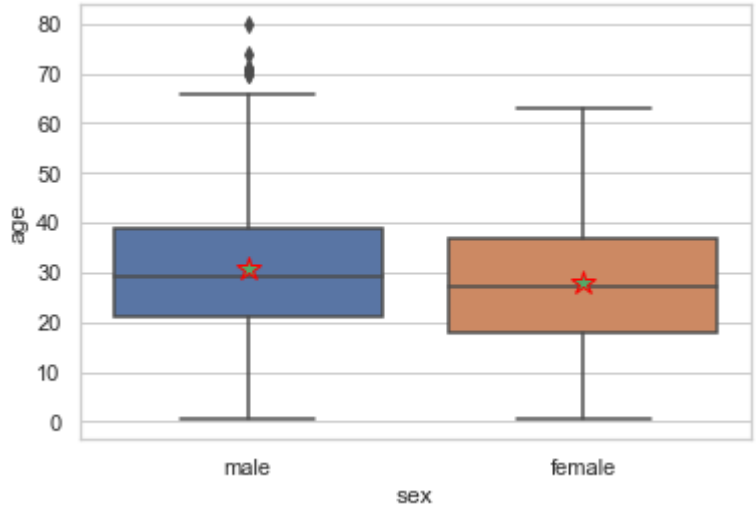
In [41]:
```
# Box plot with ShowMeans
import pandas as pd
import numpy as np
df_titanic= sns.load_dataset('titanic')
sns.boxplot(x='sex',y='age',data=df_titanic,showmeans=True)
```

Out[41]: <AxesSubplot:xlabel='sex', ylabel='age'>



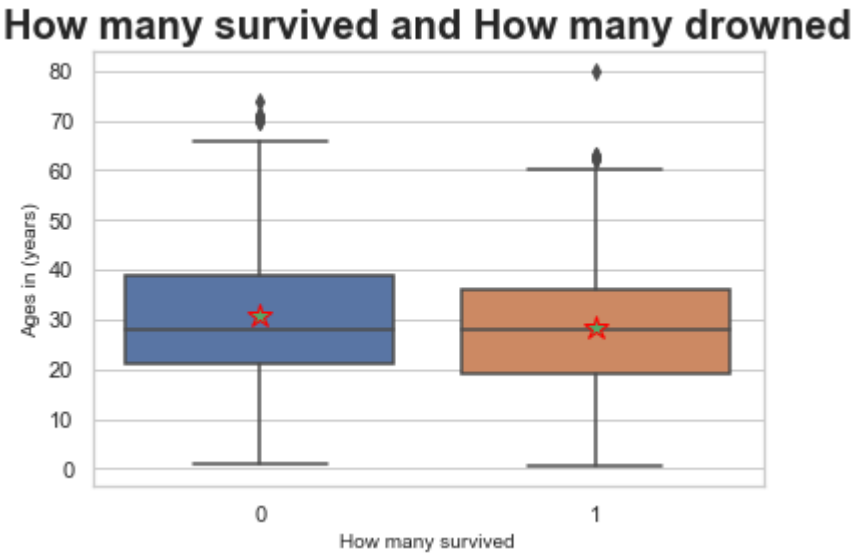
In [44]:
```
# Box plot with ShowMeans,Marker,MArker Size
import pandas as pd
import numpy as np
df_titanic= sns.load_dataset('titanic')
sns.boxplot(x='sex',y='age',showmeans=True,meanprops={"marker":"*","markersize":'
```

Out[44]: <AxesSubplot:xlabel='sex', ylabel='age'>



In [51]:
```
# with Custom title and labels,size ,weight
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
df_titanic= sns.load_dataset('titanic')
sns.boxplot(x='survived',y='age',showmeans=True,meanprops={"marker":"*","markersi
plt.xlabel("How many survived",size=10),
plt.ylabel("Ages in (years)",size=10),
plt.title("How many survived and How many drowned",size="20" ,weight="bold")
```

Out[51]:
```
Text(0.5, 1.0, 'How many survived and How many drowned')
```



Facet Grid with Chill data

In [23]:
```
#Import Libraries
import seaborn as sns
import pandas as pd
import matplotlib.pyplot as plt
```

In [25]:
```
#Load Dataset
sns.set_style('white')
df_chilla=pd.read_csv(r"C:\Users\mish\Desktop\Jupyter Notebooks\challa_data_csv.c
df_chilla
```

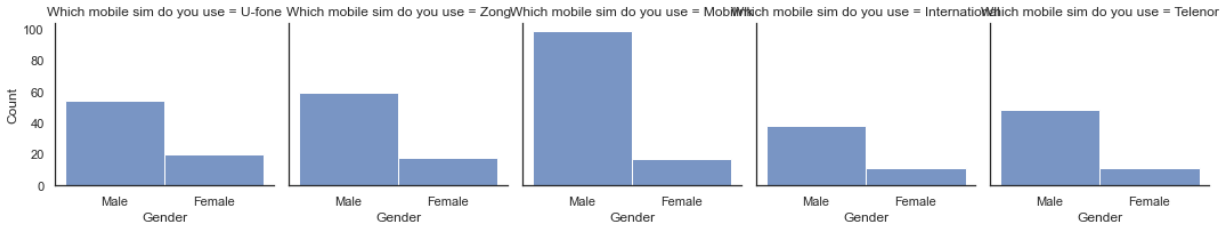
Out[25]:

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?
0	Male	Pakistan	36-40	Masters	Natural Sciences	to boost my skill set	Unemplyed
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
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	Unemplyed

375 rows × 23 columns

In [28]:
```
g=sns.FacetGrid(df_chilla,col='Which mobile sim do you use')
g.map(sns.histplot,'Gender')
```

Out[28]: <seaborn.axisgrid.FacetGrid at 0x20ae8daa640>



In [ ]:

In [ ]: