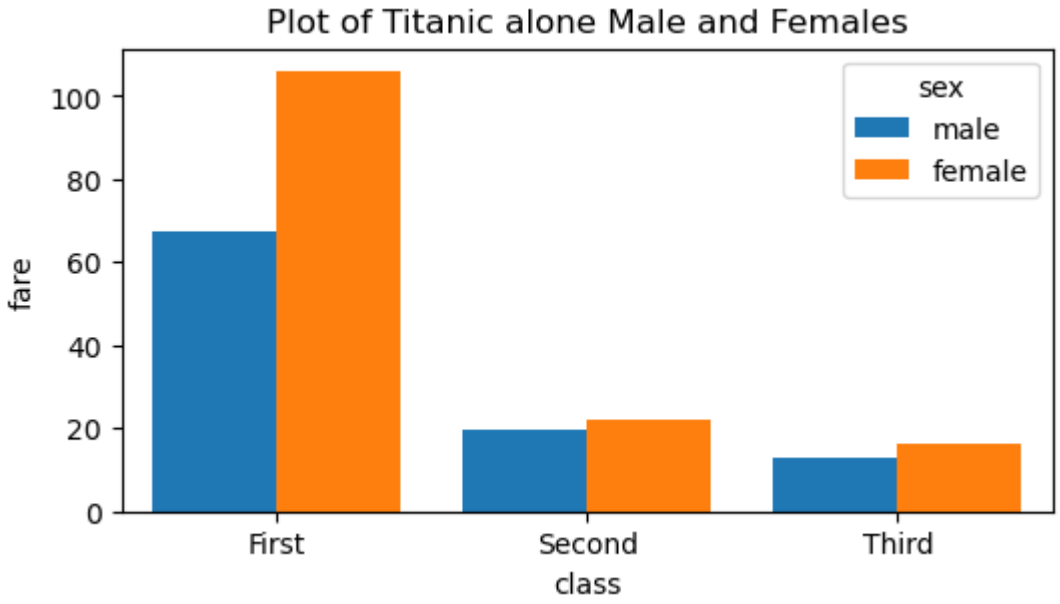
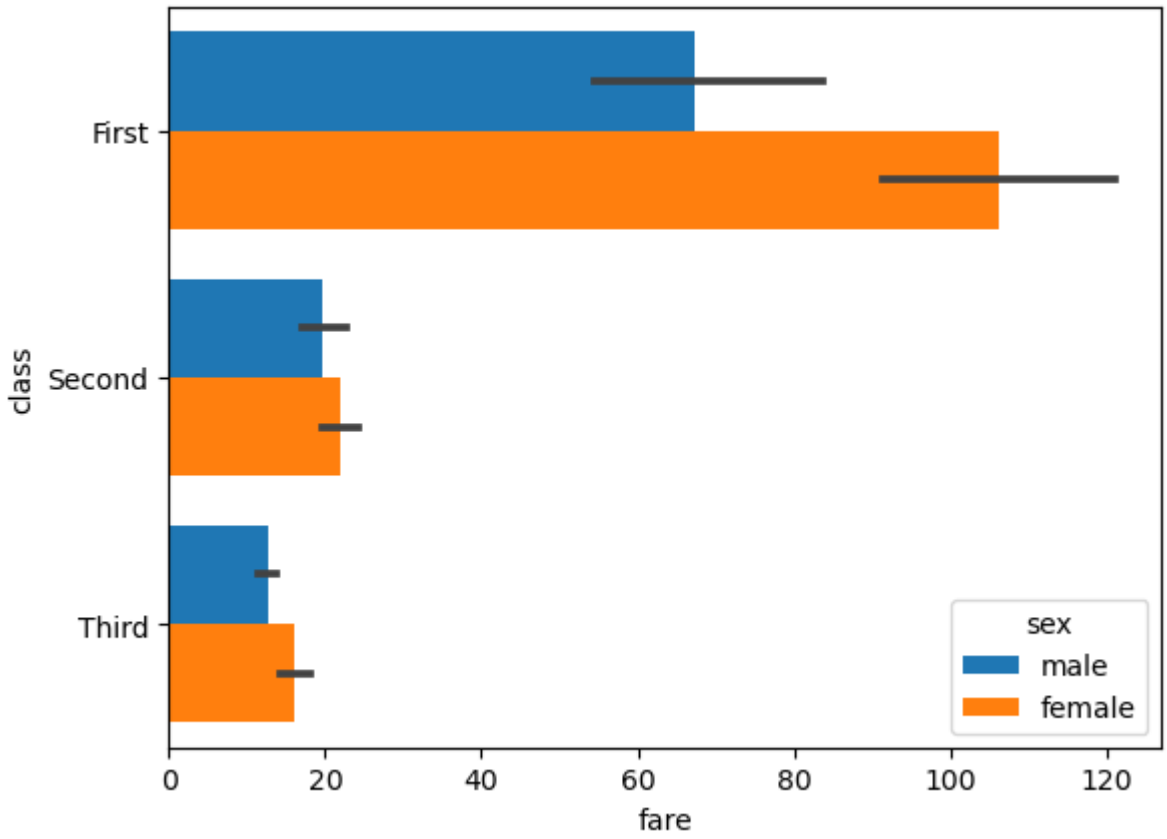
Box Plot

In [1]:
```
# Import Libraries
import seaborn as sns
import numpy
import matplotlib.pyplot as plt
# sns.set_style(style=None,rc=None)

# Load dataset
ship = sns.load_dataset('titanic')
ship
# Change figure
plt.figure(figsize=(6,3))

#draw a line plot
sns.barplot(x="class",y="fare",hue="sex",data=ship,ci=None,
                estimator=lambda x: x.mean(),saturation=1)
plt.title("Plot of Titanic alone Male and Females")
# sns.set_style("dark")
plt.show()
```



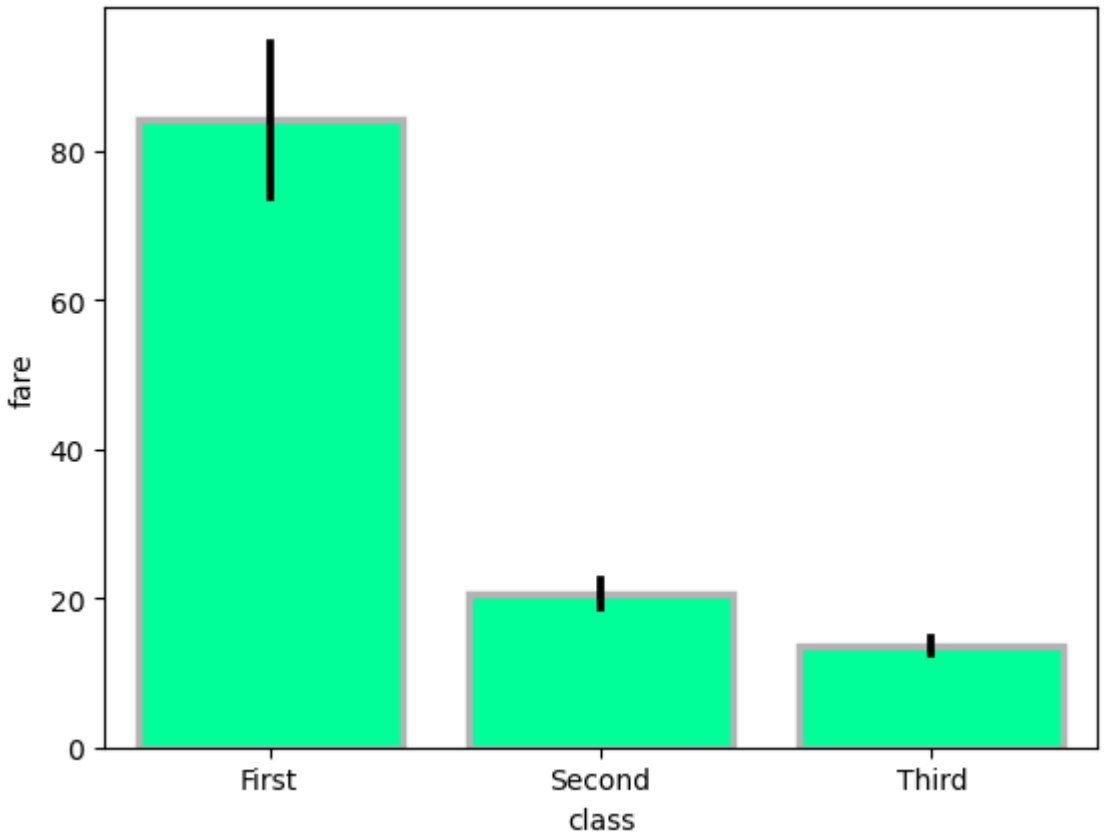
Horizontal Plot

In [9]:
```
# importing the required libraries
import seaborn as sns
import matplotlib.pyplot as plt

# read a titanic.csv file
# from seaborn library

ship = sns.load_dataset("titanic")

sns.barplot(x="fare",y="class",hue="sex",data=ship,saturation=1)
plt.show()
```



Custom Line widht , Error, Color

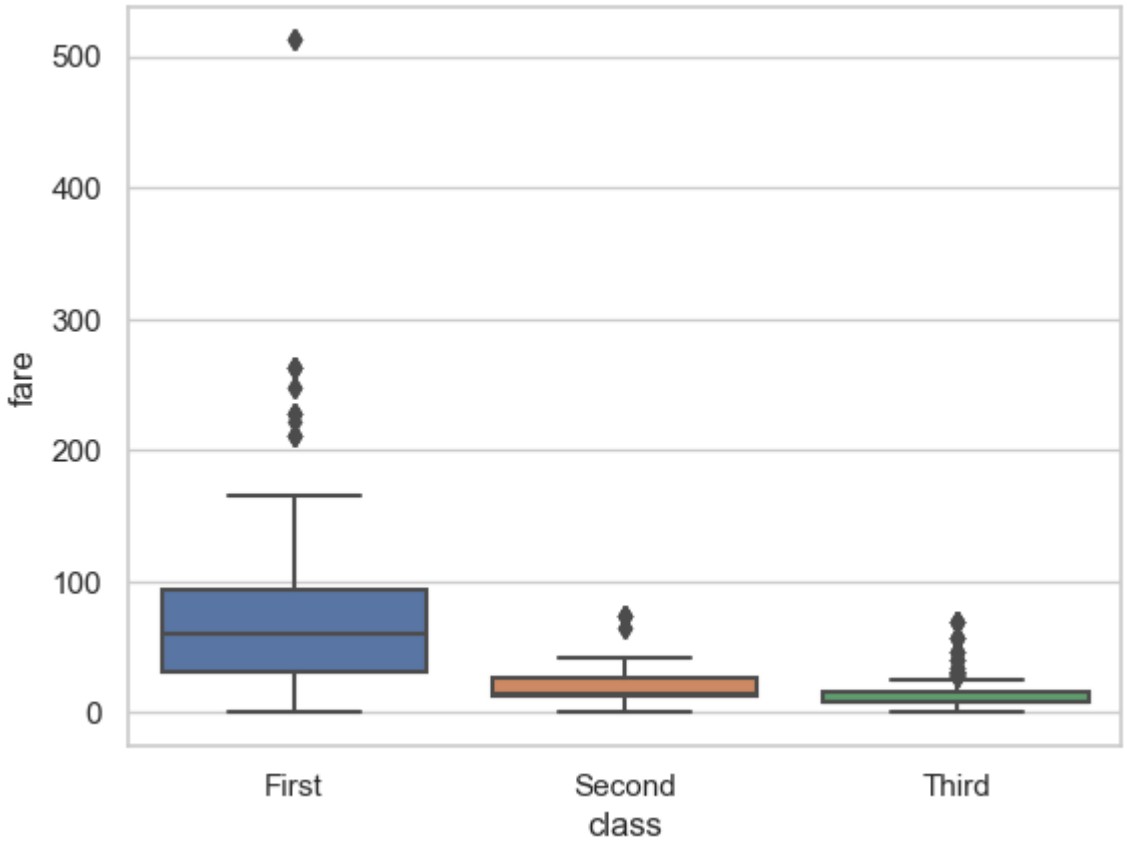
In [23]:
```
# importing the required libraries
import seaborn as sns
import matplotlib.pyplot as plt

# read a titanic.csv file
# from seaborn library

ship = sns.load_dataset("titanic")

sns.barplot(x="class",y="fare",data=ship,
            linewidth=2.5,facecolor=(0,1,0.6,1),
            errcolor="0",edgecolor=".7")
plt.show()
```



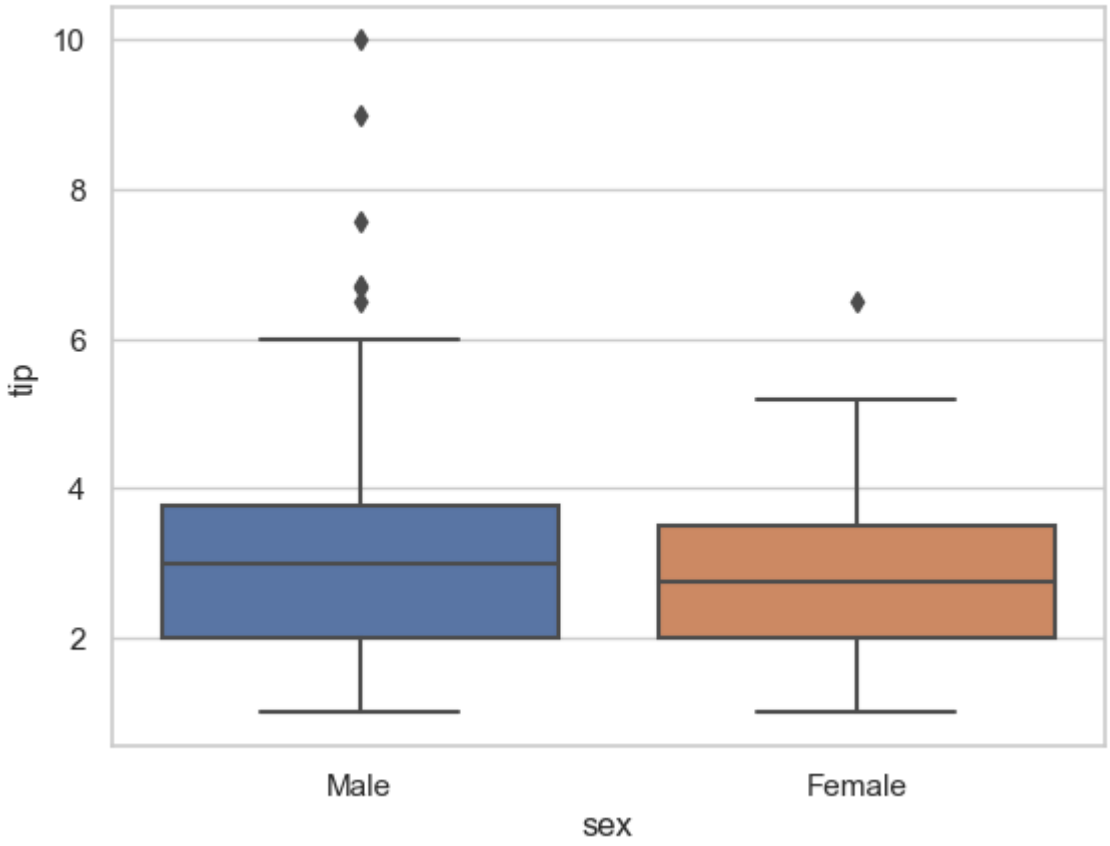
Box Plot Stating

- Well Known
- Mostly Used
- Used in Crypto

In [24]:
```
# import libraries
import seaborn as sns
# canvas (baloon board)
sns.set(style="whitegrid")

ship = sns.load_dataset("titanic")

sns.boxplot(x="class",y="fare",data=ship)
plt.show()
```

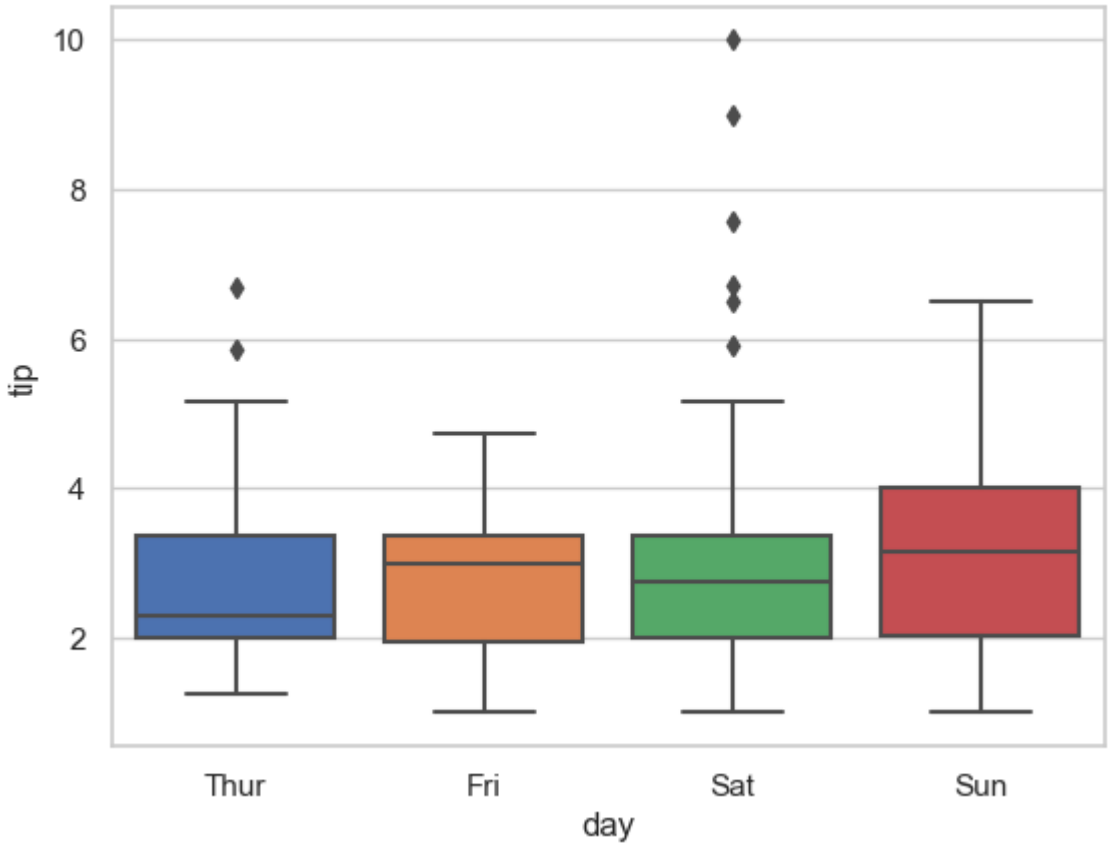


In [31]:
```
# import libraries
import seaborn as sns
# canvas (baloon board)
sns.set(style="whitegrid")

tip = sns.load_dataset("tips")
tip
sns.boxplot(x="sex",y="tip",data=tip)
plt.show()
```



Parameters or Attributes

In [33]:
```
# import libraries
import seaborn as sns
import matplotlib.pyplot as plt
# canvas (baloon board)
sns.set(style="whitegrid")

tip = sns.load_dataset("tips")
tip
sns.boxplot(x="day",y="tip",data=tip,saturation=1)
plt.show()
```



In [36]:
```
#Libraries
import seaborn as sns
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt

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

Out[36]:

	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

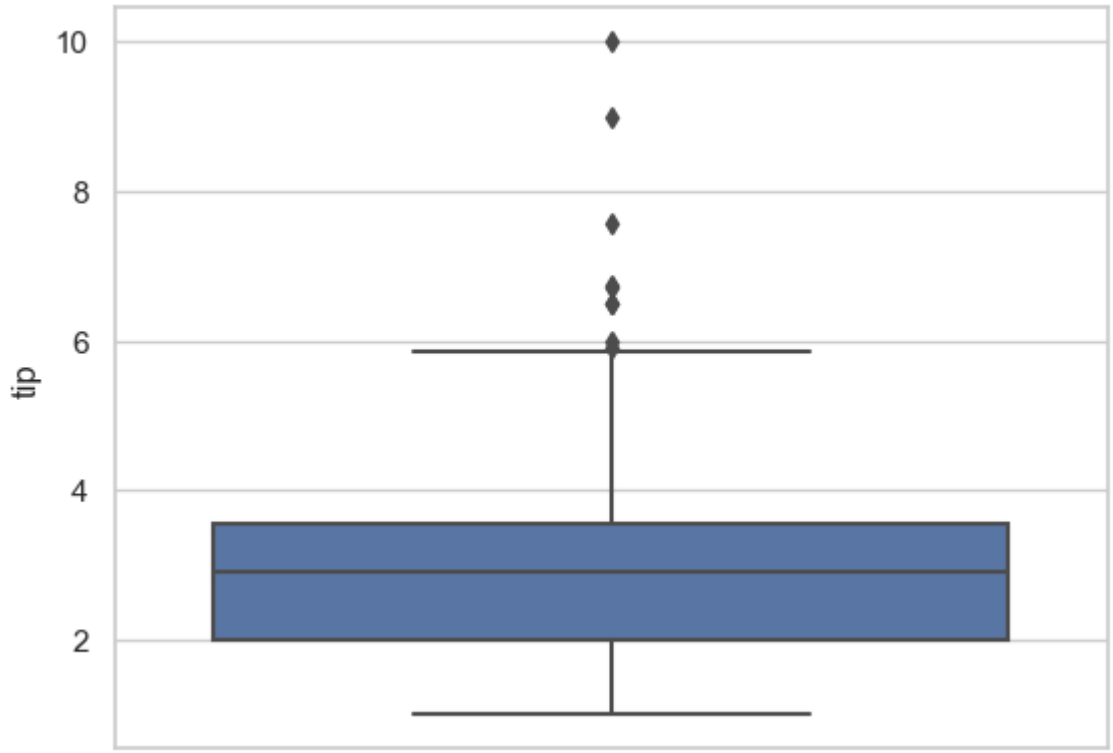
244 rows × 7 columns

In [37]:
```
#Libraries
import seaborn as sns
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt

tip = sns.load_dataset("tips")
tip.describe()
```

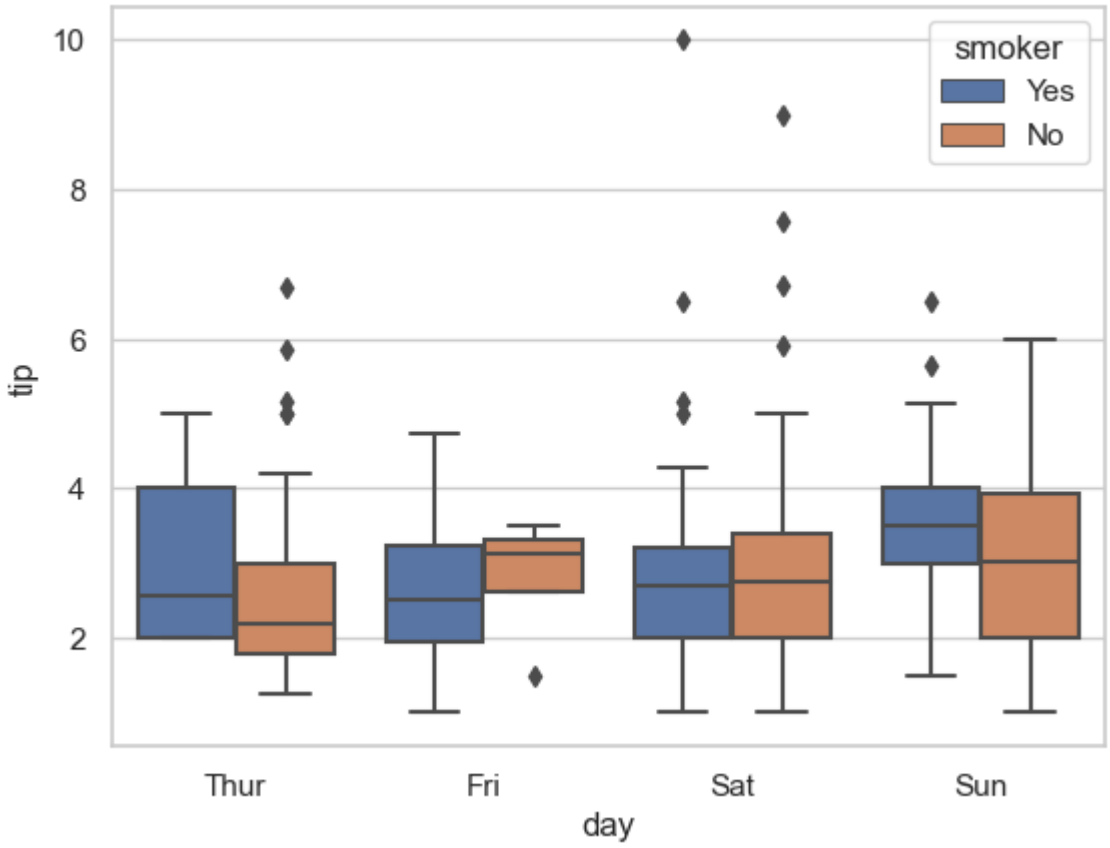
Out[37]:

	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

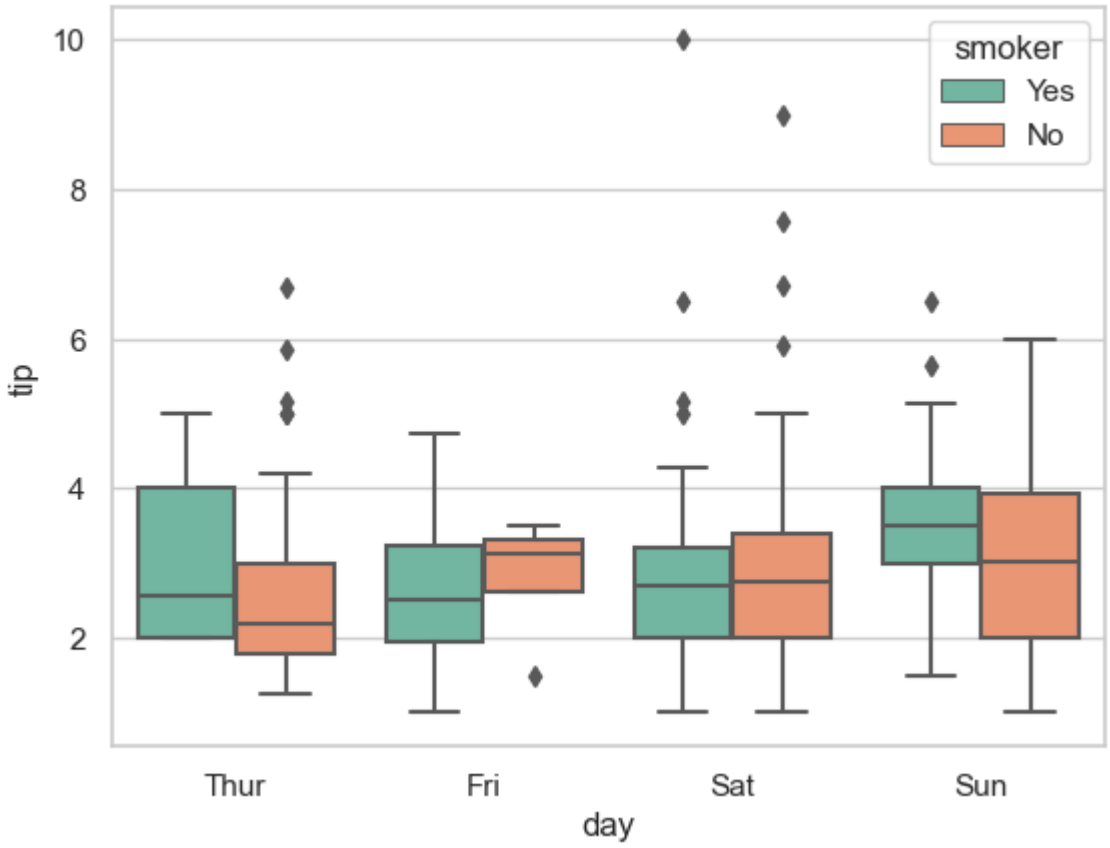
In [38]:
```
#Libraries
import seaborn as sns
sns.set(style="whitegrid")
# loading data-set
tip = sns.load_dataset("tips")
sns.boxplot(y=tip["tip"])
plt.show()
```



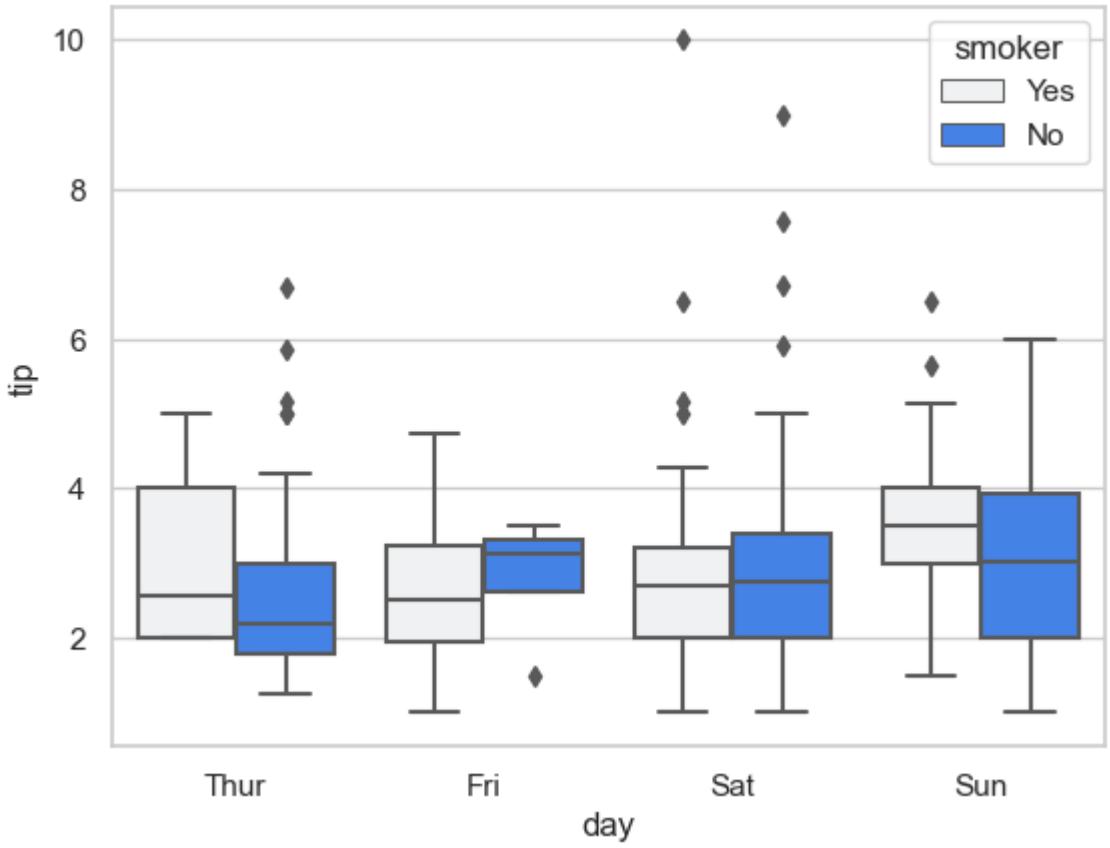
In [41]:
```
#libraries
import seaborn as sns
import matplotlib.pyplot as plt

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

# loading data-set
tip = sns.load_dataset("tips")

sns.boxplot(x="day", y="tip", hue="smoker",data=tip)
plt.show()
```



In [49]:
```
#libraries
import seaborn as sns
import matplotlib.pyplot as plt
# use to set style of background of plot
sns.set(style="whitegrid")

# loading data-set
tip = sns.load_dataset("tips")

sns.boxplot(x="day", y="tip", hue="smoker",data=tip,
            palette="Set2",dodge=True)
# Dodge=smoker plot side by side

plt.show()
```



In [54]:
```
#libraries
import seaborn as sns
import matplotlib.pyplot as plt
# use to set style of background of plot
sns.set(style="whitegrid")

# loading data-set
tip = sns.load_dataset("tips")

sns.boxplot(x="day", y="tip", hue="smoker",data=tip,
            color="#2b7cff")


plt.show()
```

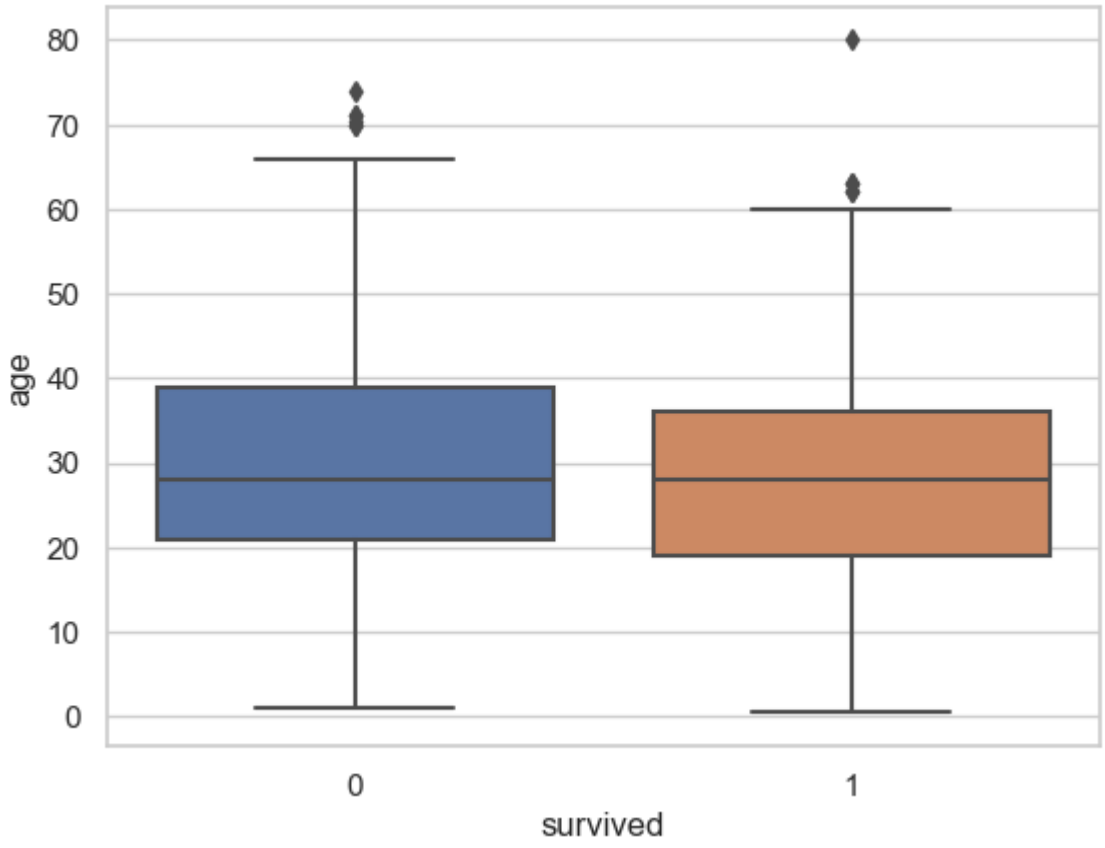


In [56]:
```
# Libraries
import seaborn as sns
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
ship = sns.load_dataset("titanic")
# ship.head() # Show first five
ship.head(10)
```

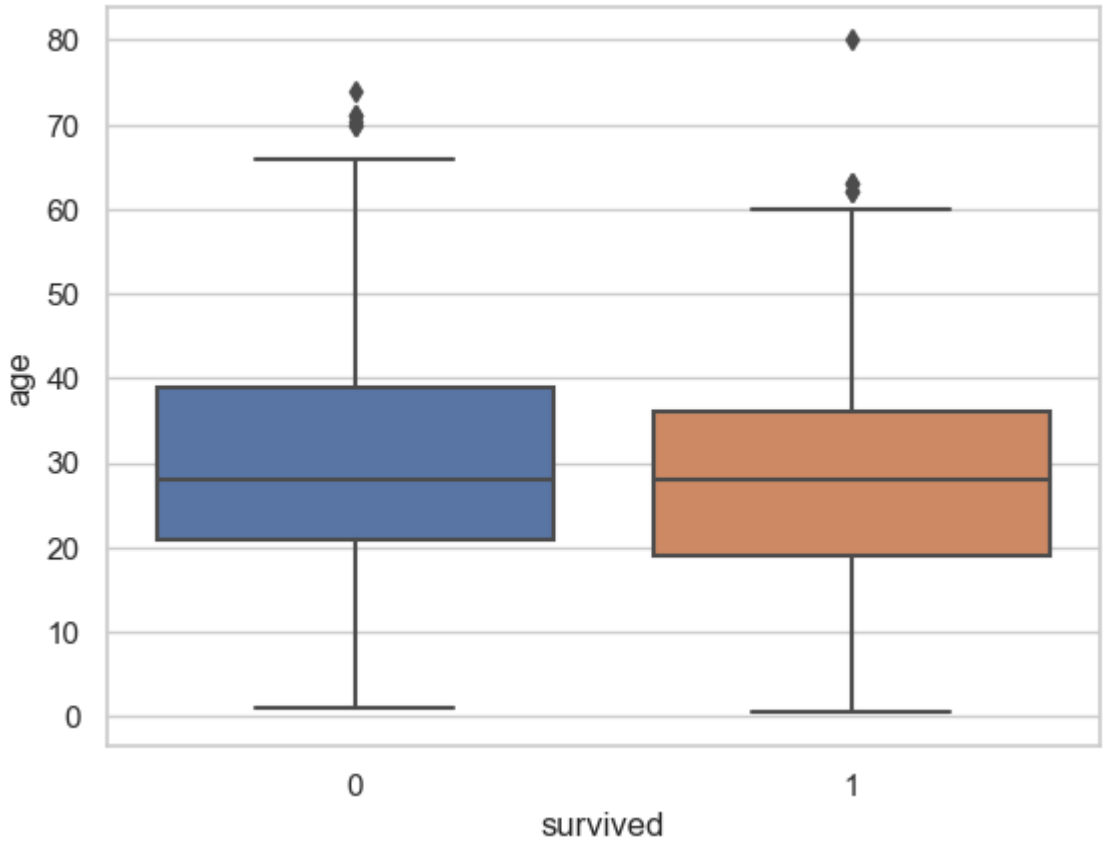
Out[56]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	decl
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	NaN
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	C
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	NaN
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	C
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	NaN
5	0	3	male	NaN	0	0	8.4583	Q	Third	man	True	NaN
6	0	1	male	54.0	0	0	51.8625	S	First	man	True	E
7	0	3	male	2.0	3	1	21.0750	S	Third	child	False	NaN
8	1	3	female	27.0	0	2	11.1333	S	Third	woman	False	NaN
9	1	2	female	14.0	1	0	30.0708	C	Second	child	False	NaN

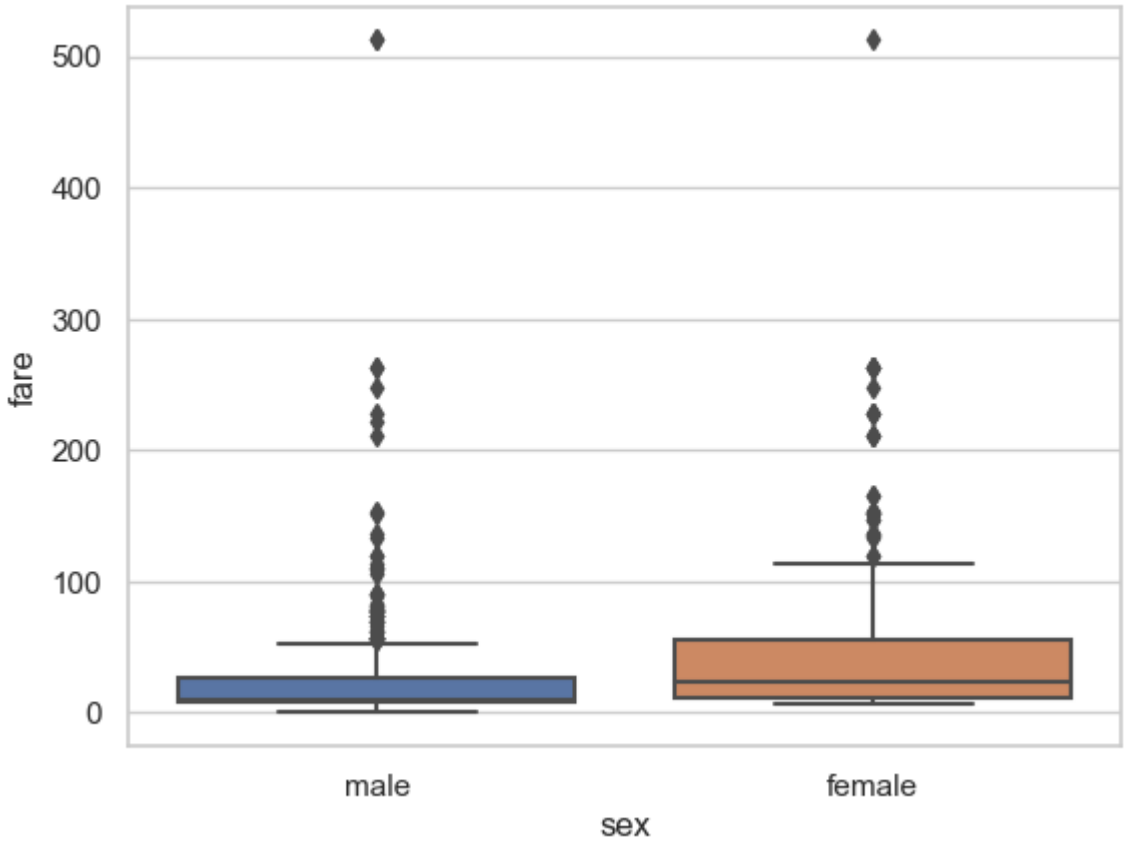
In [60]:
```
# libraries
import seaborn as sns
import pandas as pd
import numpy as np
ship = sns.load_dataset("titanic")

sns.boxplot(x="survived",y="age",data=ship)

plt.show()
```



In [63]:
```
sns.boxplot(x="survived",y="age",data=ship)

plt.show()
```

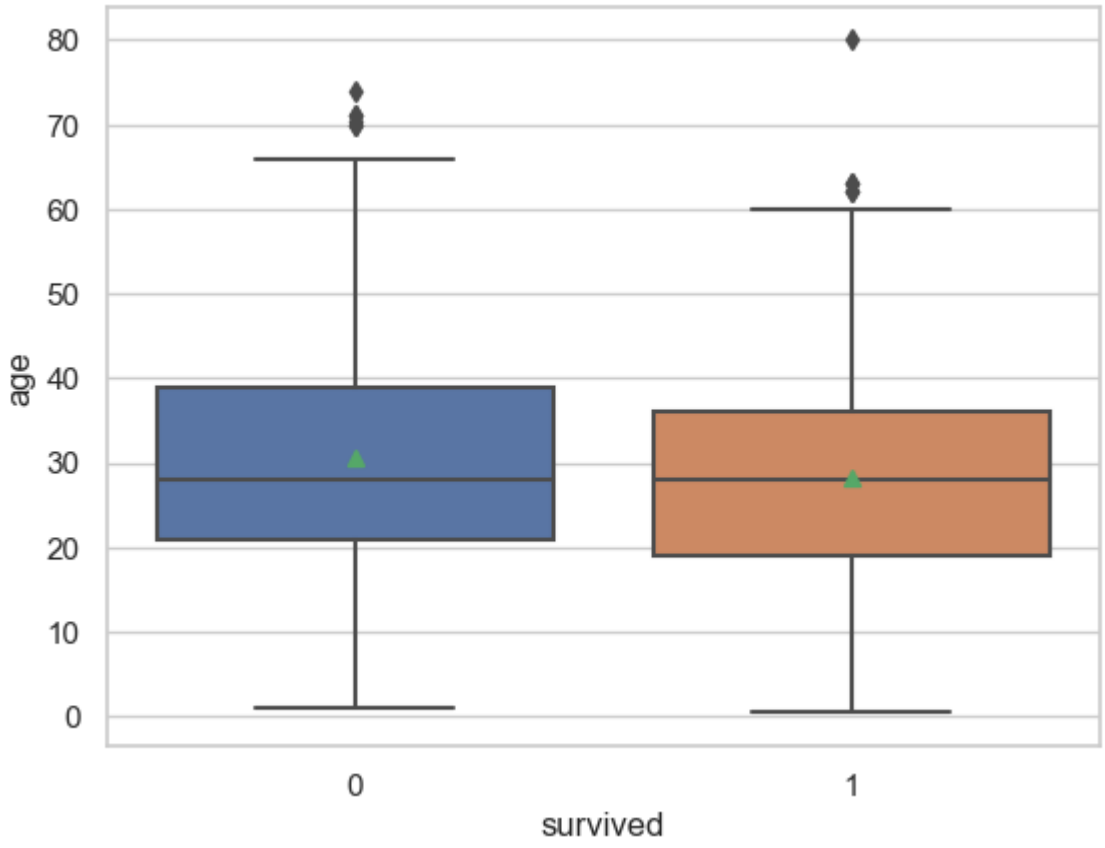


In [62]:
```
# Libraries
import seaborn as sns
import pandas as pd
import numpy as np
ship = sns.load_dataset("titanic")

sns.boxplot(x="sex",y="fare",data=ship)

plt.show()
```

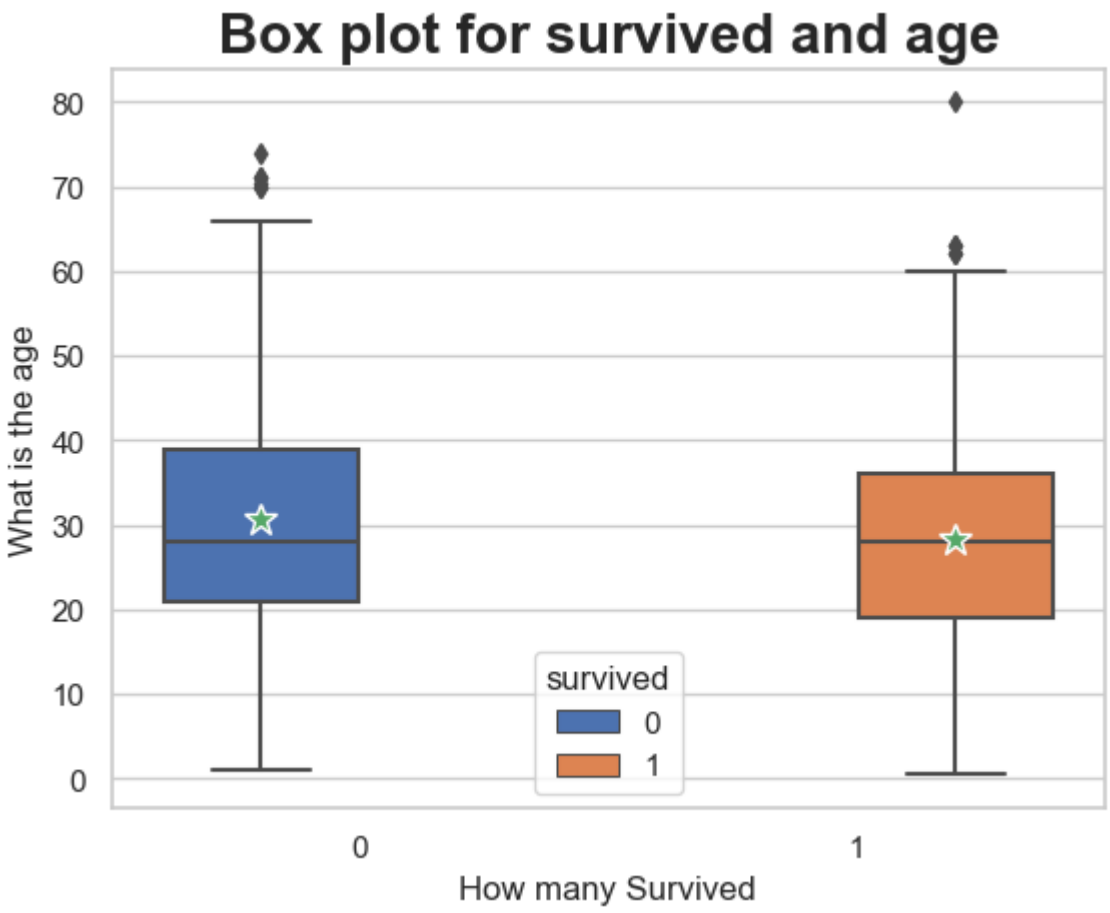


Show Mean in Box Plot

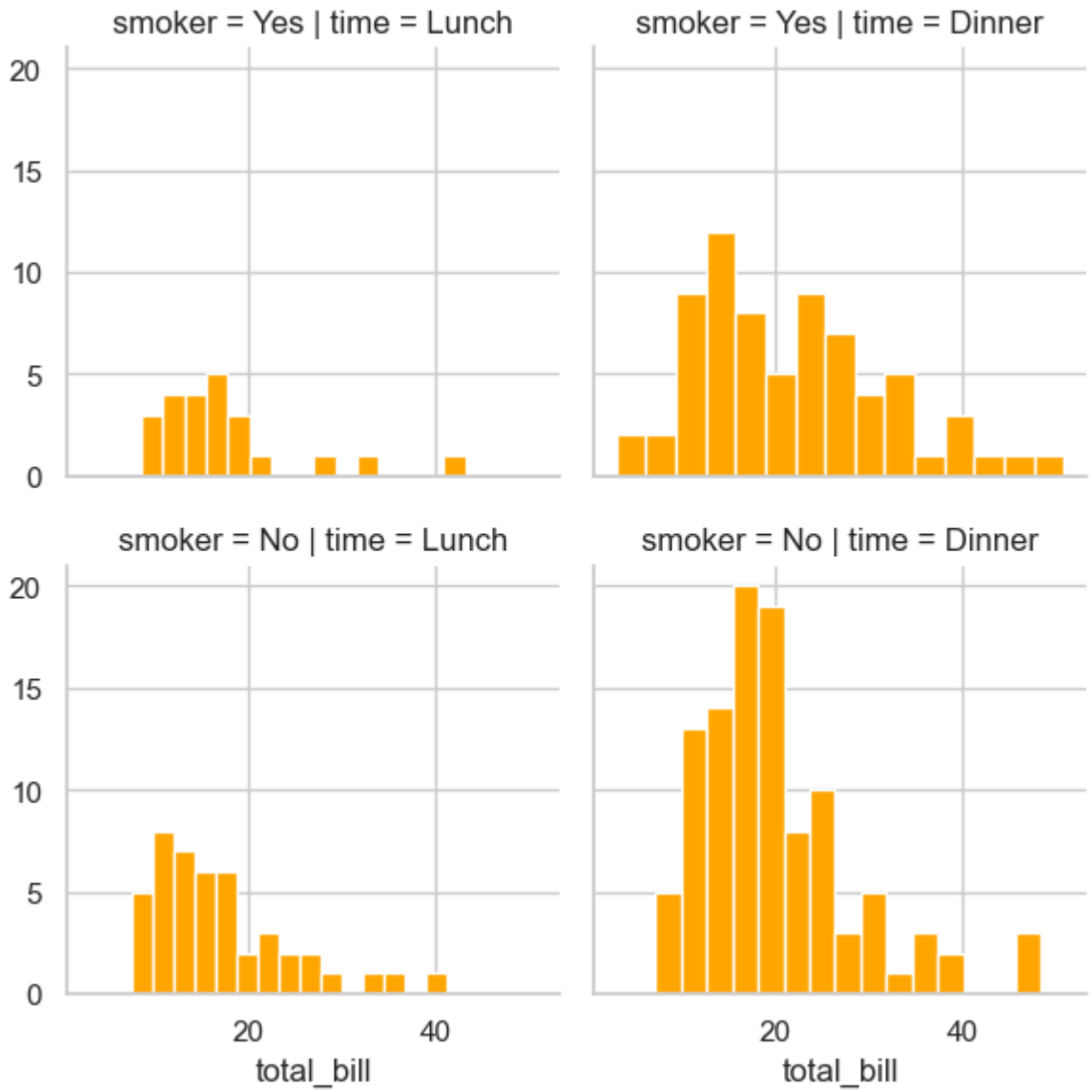
In [65]:
```
sns.boxplot(x="survived",y="age",showmeans=True,data=ship)

plt.show()
```



In [79]:
```
sns.boxplot(x="survived",y="age",showmeans=True,
            saturation = 1,
            meanprops={"marker":"*",
                       "markersize":"12",
                       "markeredgecolor":"white"},hue="survived",data=ship)
# Show labels
plt.title("Box plot for survived and age",size=20,weight='bold'),
plt.xlabel("How many Survived")
plt.ylabel("What is the age")


plt.show()
```



In [82]:
```
# importing packages
import seaborn
import matplotlib.pyplot as plt

# loading of a dataframe from seaborn
df = seaborn.load_dataset('tips')

############## Main Section         ##############
# Form a facetgrid using columns with a hue
graph = seaborn.FacetGrid(df, row ='smoker', col ='time')
# map the above form facetgrid with some attributes
graph.map(plt.hist, 'total_bill', bins = 15, color ='orange')
# show the object
plt.show()

# This code is contributed by Deepanshu Rustagi.
```



In [ ]:
```
# importing packages
import seaborn
import matplotlib.pyplot as plt

sns.boxplot(x="survived",y="age",showmeans=True,
            saturation = 1,
            meanprops={"marker":"*",
                       "markersize":"12",
                       "markeredgecolor":"white"},
            hue="survived",data=ship,row)
# Show labels
plt.title("Box plot for survived and age",size=20,weight='bold'),
plt.xlabel("How many Survived")
plt.ylabel("What is the age")


plt.show()
```

In [83]:
```
import plotly.express as px
df = px.data.iris()
fig = px.scatter(df,x="sepal_width",y="sepal_length",color="species",
                 marginal_y="violin",
```

```
                marginal_x="box",trendline="ols",template="simple_white"
)
fig.show()
```