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Subject: Software Laboratory III (DATA SCIENCE)

Assignment No : 09

Problem statement:

Data Visualization II

1. Use the inbuilt dataset 'titanic' as used in the above problem. Plot a box plot for distribution of age with respect to each gender along with the information about whether they survived or not. (Column names : 'sex' and 'age')
2. Write observations on the inference from the above statistics.

CODE :

---------- Assignment No : 09 ----------

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2. Write observations on the inference from the above statistics.

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

[1] ✓ 3.2s

```
dataset = sns.load_dataset('titanic')
dataset.head()
```

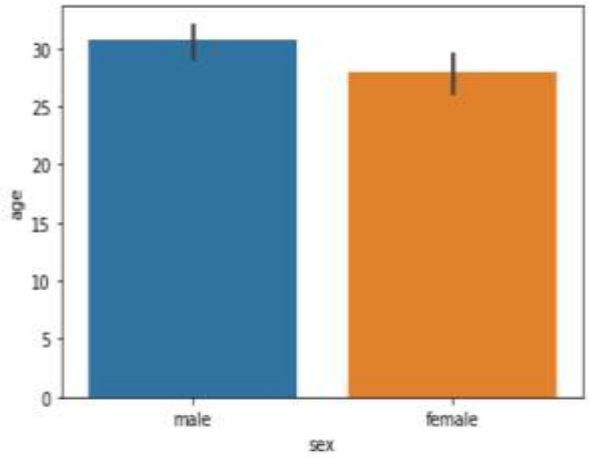
[2] ✓ 0.1s

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	deck	embark_town	alive	alone
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	NaN	Southampton	no	False
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	C	Cherbourg	yes	False
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	NaN	Southampton	yes	True
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	C	Southampton	yes	False
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	NaN	Southampton	no	True

```
sns.barplot(data=dataset,x='sex',y='age')
```

[3] ✓ 0.3s

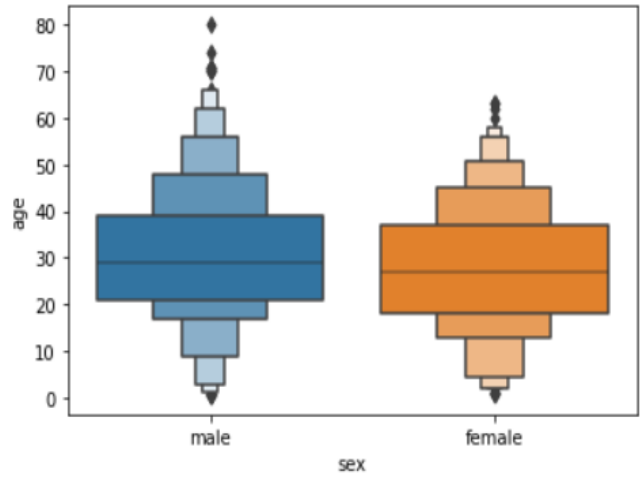
```
<AxesSubplot:xlabel='sex', ylabel='age'>
```




```
sns.boxenplot(data=dataset,x='sex',y='age')
```

[4] ✓ 0.1s

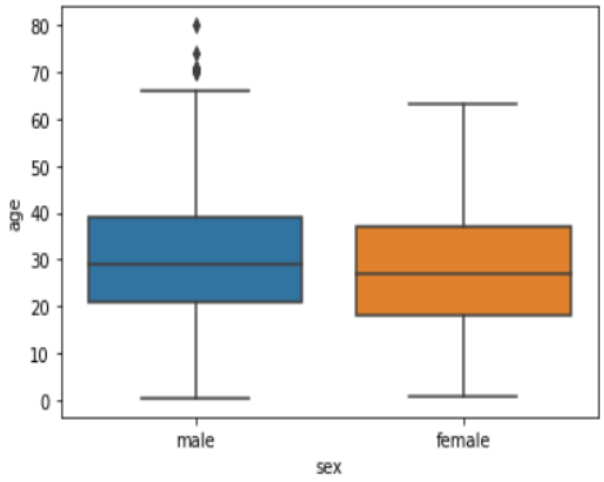
```
<AxesSubplot:xlabel='sex', ylabel='age'>
```



```
sns.boxplot(data=dataset,x='sex',y='age')
```

[5] ✓ 0.1s

```
<AxesSubplot:xlabel='sex', ylabel='age'>
```




```
plt.figure(figsize=(8,10))
sns.boxplot(data=dataset,x='sex',y='age',hue='survived')
plt.show()
```

✓ 0.2s