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Roll NO: T190424399 Assignment No :09

## ##DATA VISUALIZATION II

1.Use the inbuilt dataset 'titanic' as used in the above problem. Plot a box plot for distribution of age with respec t to each gender along with the information about whether they sur vived or not. (Column names : 'sex' and 'age')

2.Write observations on the inference from the abov e statistics

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

In [2]: titanic = sns.load\_dataset("titanic")

In [3]: titanic

survived	pclass
	survived

_		survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adul
-	0	0	3	male	22.0	1	0	7.2500	S	Third	man	
	1	1	1	female	38.0	1	0	71.2833	С	First	woman	
	2	1	3	female	26.0	0	0	7.9250	S	Third	woman	
	3	1	1	female	35.0	1	0	53.1000	S	First	woman	
	4	0	3	male	35.0	0	0	8.0500	S	Third	man	
	886	0	2	male	27.0	0	0	13.0000	S	Second	man	
	887	1	1	female	19.0	0	0	30.0000	S	First	woman	
	888	0	3	female	NaN	1	2	23.4500	S	Third	woman	
	889	1	1	male	26.0	0	0	30.0000	С	First	man	
	890	0	3	male	32.0	0	0	7.7500	Q	Third	man	

891 rows × 15 columns

In [4]:	titanic.info
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Out[4]:		nd meth arch		aFrame embar		of class \		/ived	pcl	ass	sex	age	sibs
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	889	man		True	C	Cherbo	_	yes		rue			
	890	man		True	NaN	Queenst	own	no	Т	rue			

[891 rows x 15 columns]>

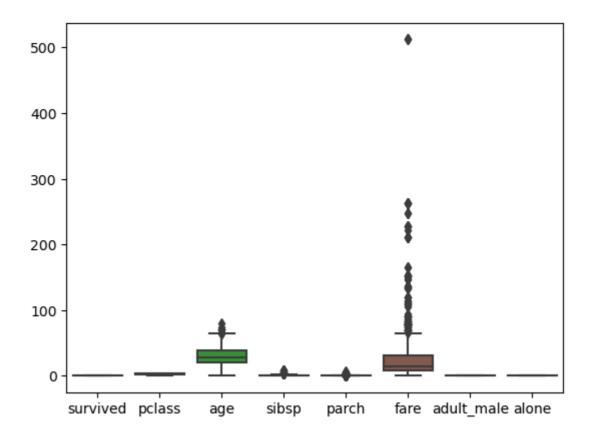
In [5]: titanic.describe

Out[5]:	<bou< th=""><th>nd metho</th><th>od NDFra fare</th><th></th><th>describ barked</th><th>e of s</th><th>urvived</th><th>р</th><th>class</th><th>sex</th><th>age</th><th>si</th></bou<>	nd metho	od NDFra fare		describ barked	e of s	urvived	р	class	sex	age	si
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	st 2		1	3	female	26.0	0	0	7.9250		S	Thi
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	887 st		1	1	female	19.0	0	0	30.0000		S	Fir
	888		0	3	female	NaN	1	2	23.4500		S	Thi
	rd 889		1	1	male	26.0	0	0	30.0000		С	Fir
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	890 rd		0	3	male	32.0	0	0	7.7500		Q	Thi
	ru											
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	2	woman	Fa	lse	NaN	Southampton	yes	T	rue			
	3	woman	Fa	lse	C	Southampton	yes	Fa	lse			
	4	man	Т	rue	NaN	Southampton	no	T	rue			
	• •	• • •							• • •			
	886	man	Т	rue	NaN	Southampton	no	T	rue			
	887	woman	Fa	lse	В	Southampton	yes	T	rue			
	888	woman	Fa	lse	NaN	Southampton	no	Fa	lse			
	889	man	Т	rue	С	Cherbourg	yes	T	rue			
	890	man	Т	rue	NaN	Queenstown	no	T	rue			

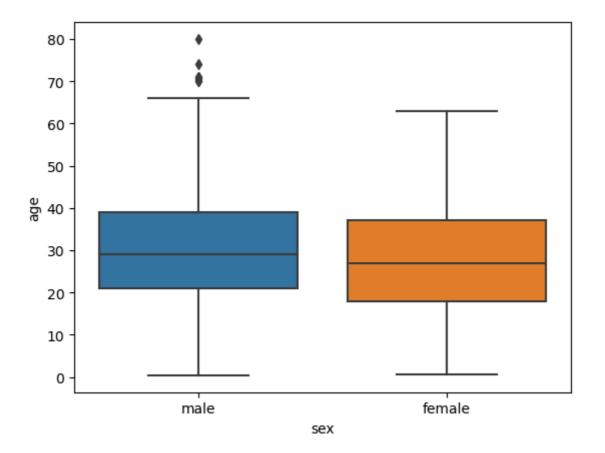
[891 rows x 15 columns]>

```
In [6]: sns.boxplot(data = titanic )
```

Out[6]: <Axes: >

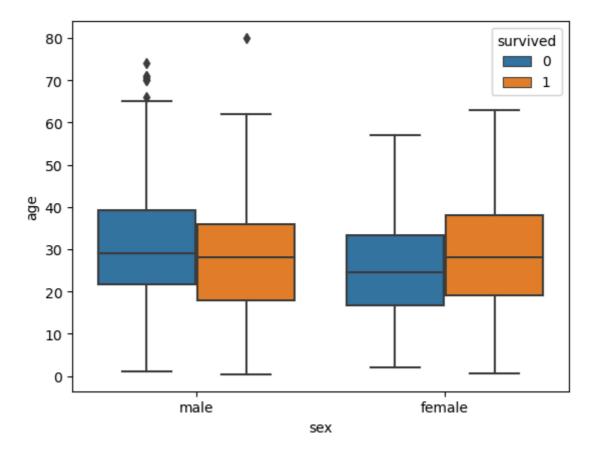


Out[7]: <Axes: xlabel='sex', ylabel='age'>



In [8]: 1 sns.boxplot(data = titanic , x= "sex" ,y = "age" , hue = "survived")
2

Out[8]: <Axes: xlabel='sex', ylabel='age'>



## ##CONLUSIONS

- 1.Gents between 20-40 have died
- 2.Teenagers between 20-25 survived
- 3.Ladies between 20-40 have survived
- 4. Young girls between 15-20 couldn't survived