

Assignment No 9

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

```
df1 = sns.load_dataset('titanic')
df1
```

↗

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	a
0	0	3	male	22.0	1	0	7.2500	S	Third	man	
1	1	1	female	38.0	1	0	71.2833	C	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	C	First	man	
890	0	3	male	32.0	0	0	7.7500	Q	Third	man	

891 rows x 15 columns

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```
df = pd.DataFrame(df1)
```

```
df.head()
```

	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	C	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	

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```
df.describe()
```

	survived	pclass	age	sibsp	parch	fare
count	891.000000	891.000000	714.000000	891.000000	891.000000	891.000000
mean	0.383838	2.308642	29.699118	0.523008	0.381594	32.204208
std	0.486592	0.836071	14.526497	1.102743	0.806057	49.693429
min	0.000000	1.000000	0.420000	0.000000	0.000000	0.000000
25%	0.000000	2.000000	20.125000	0.000000	0.000000	7.910400
50%	0.000000	3.000000	28.000000	0.000000	0.000000	14.454200
75%	1.000000	3.000000	38.000000	1.000000	0.000000	31.000000
max	1.000000	3.000000	80.000000	8.000000	6.000000	512.329200

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 891 entries, 0 to 890
Data columns (total 15 columns):
#   Column      Non-Null Count  Dtype
---  -
0   survived    891 non-null    int64
1   pclass      891 non-null    int64
```

```

2  sex      891 non-null  object
3  age      714 non-null  float64
4  sibsp    891 non-null  int64
5  parch    891 non-null  int64
6  fare     891 non-null  float64
7  embarked 889 non-null  object
8  class    891 non-null  category
9  who      891 non-null  object
10 adult_male 891 non-null bool
11 deck     203 non-null  category
12 embark_town 889 non-null object
13 alive    891 non-null  object
14 alone    891 non-null  bool
dtypes: bool(2), category(2), float64(2), int64(4), object(5)
memory usage: 80.7+ KB

```

```
df.columns
```

```

Index(['survived', 'pclass', 'sex', 'age', 'sibsp', 'parch', 'fare',
      'embarked', 'class', 'who', 'adult_male', 'deck', 'embark_town',
      'alive', 'alone'],
      dtype='object')

```

```

sns.set_style('whitegrid')
plt.figure(figsize = (10 , 4))
sns.boxplot(x = 'age' , y = 'sex' , data= df , hue = 'survived')

```

<Axes: xlabel='age', ylabel='sex'>

