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Subject : Assignment-8 DV

Assignment -8

Problem Statement : 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')

Dataset link : https://github.com/datasciencedojo/datasets/blob/master/titanic.csv

˅ Importing Libraries

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

˅ Dataframe Creation and EDA

```
# Load the Titanic dataset
file_path = '/content/titanic.csv'
df = pd.read_csv(file_path)
```

```
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500

Next steps: Generate code with `df`   ◖ View recommended plots   New interactive sheet

```
df.tail()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	C
886	887	0	2	Montvila, Rev.	male	27.0	0	0	211536	13.00	

```python
# Create the box plot
plt.figure(figsize=(10, 6))
sns.boxplot(x='Sex', y='Age', hue='Survived', data=df)

# Set plot title and labels
plt.title('Distribution of Age with respect to Gender and Survival Status')
plt.xlabel('Gender')
plt.ylabel('Age')

# Show the plot
plt.show()
```


Distribution of Age with respect to Gender and Survival Status