

## **ASSIGNMENT - WEEK3**

```
import pandas as pd

import seaborn as sns

import matplotlib.pyplot as plt


# Use a clean style

sns.set(style="whitegrid")


# Load the dataset

print("Loading Titanic dataset...")

df = sns.load_dataset("titanic") # This needs internet the first time

print("Dataset loaded!\n")


# Show first few rows

print(" Preview of data:")

print(df.head(), "\n")


# Plot 1: Survival Count

plt.figure()

sns.countplot(x="survived", data=df)

plt.title("Survival Count (0 = No, 1 = Yes)")

plt.xlabel("Survived")

plt.ylabel("Number of Passengers")

plt.show()


# Plot 2: Survival by Gender

plt.figure()
```

```
sns.countplot(x="sex", hue="survived", data=df)

plt.title("Survival by Gender")

plt.xlabel("Gender")

plt.ylabel("Number of Passengers")

plt.legend(title="Survived", labels=["No", "Yes"])

plt.show()
```

# Plot 3: Survival by Passenger Class

```
plt.figure()

sns.countplot(x="pclass", hue="survived", data=df)

plt.title("Survival by Passenger Class")

plt.xlabel("Passenger Class")

plt.ylabel("Number of Passengers")

plt.legend(title="Survived", labels=["No", "Yes"])

plt.show()
```

```
print(" Basic EDA complete!")
```

```

Loading Titanic dataset...
Dataset loaded!

Preview of data:
   survived  pclass    sex  age  sibsp  parch    fare embarked  class \
0         0      3  male  22.0     1     0   7.2500         S   Third
1         1      1  female 38.0     1     0  71.2833         C   First
2         1      3  female 26.0     0     0   7.9250         S   Third
3         1      1  female 35.0     1     0  53.1000         S   First
4         0      3  male  35.0     0     0   8.0500         S   Third

   who  adult_male  deck  embark_town  alive  alone
0  man         True  NaN  Southampton    no  False
1 woman        False   C   Cherbourg   yes  False
2 woman        False  NaN  Southampton   yes   True
3 woman        False   C   Southampton   yes  False
4  man         True  NaN  Southampton    no   True

```

