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Assignment no:9

Aim:
Title of the Assignment: 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.

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

file_path = r"C:\Users\CNLAB04\Desktop\Titanic-Dataset.csv"
df = pd.read_csv(file_path)

print(df.columns)
df.columns = df.columns.str.strip()

sns.set(style="whitegrid")
plt.figure(figsize=(10,6))

sns.boxplot(x='Sex', y='Age', hue='Survived', data=df, palette='Set2')

plt.title('Box Plot for Age Distribution by Gender and Survival
Status')
plt.xlabel('Gender')
plt.ylabel('Age')
plt.show()

Index(['PassengerId', 'Survived', 'Pclass', 'Name', 'Sex', 'Age',
'SibSp',
       'Parch', 'Ticket', 'Fare', 'Cabin', 'Embarked'],
      dtype='object')
```
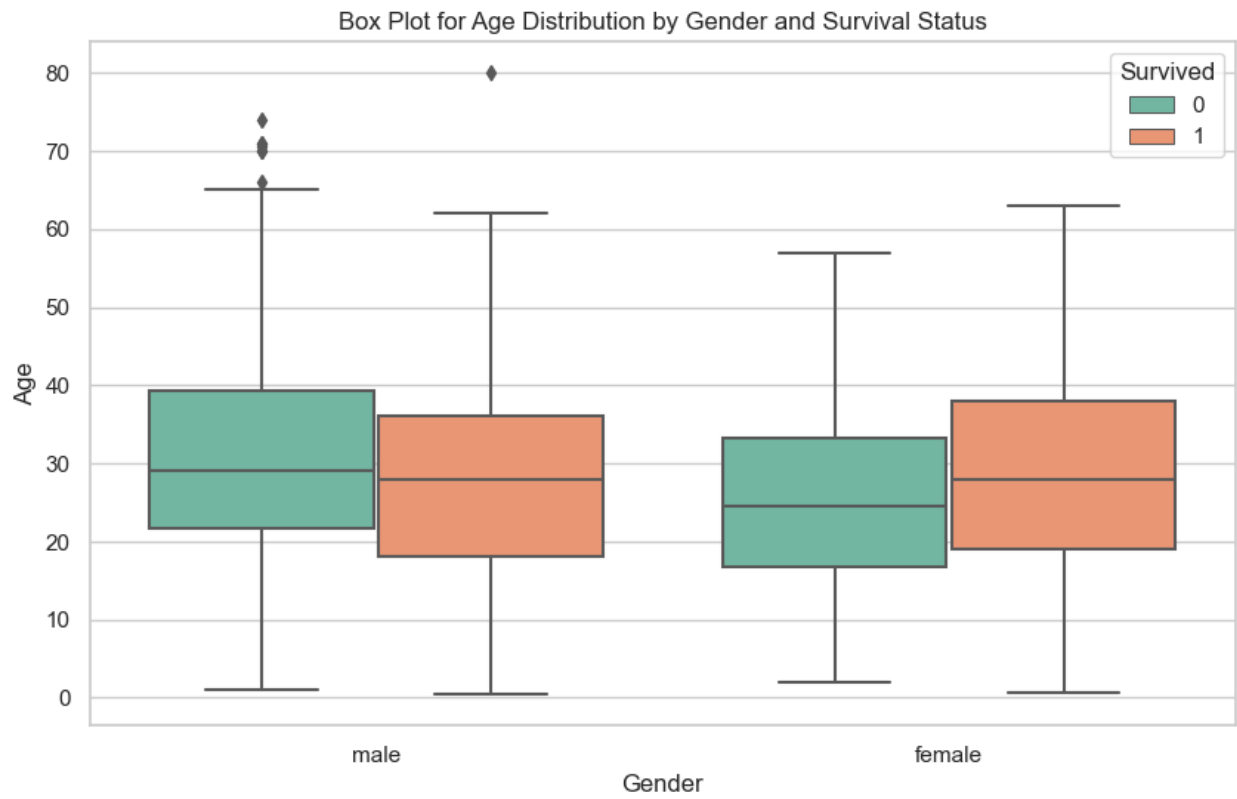
Box Plot for Age Distribution by Gender and Survival Status

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