In [2]: **import** numpy **as** np import pandas as pd import matplotlib.pyplot as plt import seaborn as sns In []: In [3]: a=pd.Series([4, 3, 4, 4, 2, 2, 2, 3, 2, 3, 1, 6, 1, 3, 1, 2, 2, 1, 1, 3, 3, 2, 2, 2, 2, 1, 3, 3, 3, 1, 2, 1, 3, 3, 1, 2, 4, 4, 4, 4, 3, 2, 2, 3, 3, 3, 3, 3, 3, 3, 1, 2, 4, 5, 3, 3, 2, 1, 2, 2, 3, 3, 3, 2, 2, 6, a.value_counts() Out[3]: 3 28 25 13 1 8 2 5 1 dtype: int64 In [5]: **import** seaborn **as** sns df = sns.load_dataset('titanic') df fare embarked Out[5]: class who adult_male deck embark_town alive alone survived pclass sex age sibsp parch Third 0 0 7.2500 3 male 22.0 S man True NaN Southampton no False 1 1 female 38.0 0 71.2833 First woman False Cherbourg yes False 2 3 female 26.0 0 7.9250 1 0 S Third woman False NaN Southampton yes True 3 0 53.1000 1 female 35.0 First woman C Southampton yes False False 3 male 35.0 4 0 0 0 8.0500 S Third man True NaN Southampton no True S Second man 886 0 2 male 27.0 0 0 13.0000 True NaN Southampton no True 0 30.0000 B Southampton yes True 887 1 female 19.0 First woman False 3 female NaN 2 23.4500 888 1 S Third woman False NaN Southampton no False man 889 0 30.0000 Cherbourg yes True 1 male 26.0 First True 890 3 male 32.0 0 7.7500 Q Third man True NaN Queenstown no True 891 rows × 15 columns In [8]: sns.boxplot(data=df, x="sex", y="age", hue="survived") Out[8]: <AxesSubplot:xlabel='sex', ylabel='age'> 80 -70 60 50 g 40 30 20 survived 10 ___1 male female In [9]: sns.barplot(data=df, x="sex", y="age", hue="survived") Out[9]: <AxesSubplot:xlabel='sex', ylabel='age'> 30 25 20 10 survived male female sex In [10]: **df** Out[10]: survived pclass sex age sibsp parch fare embarked class who adult_male deck embark_town alive alone 0 male 22.0 0 7.2500 Southampton 1 0 71.2833 1 female 38.0 First woman Cherbourg 2 0 7.9250 3 female 26.0 Third woman Southampton 3 0 53.1000 1 female 35.0 First woman C Southampton yes False 4 0 8.0500 3 male 35.0 Southampton True Third man 886 male 27.0 0 13.0000 S Second Southampton True man 887 1 female 19.0 0 30.0000 First woman B Southampton yes True 888 3 female NaN 2 23.4500 Third woman Southampton no False 0 30.0000 First 889 male 26.0 Cherbourg yes True man 890 male 32.0 0 7.7500 man Queenstown Third 891 rows × 15 columns In [11]: sns.barplot(data=df,y="survived",x="class") Out[11]: <AxesSubplot:xlabel='class', ylabel='survived'> 0.7 0.6 0.5 ₽ 0.4 · ₹ 0.3 -0.2 0.1 0.0 Third First Second class In [13]: df_second=df.loc[df["class"]=="Second"] df_second["fare"] Out[13]: 9 30.0708 16.0000 13.0000 20 26.0000 21 13.0000 . . . 866 13.8583 874 24.0000 880 26.0000 883 10.5000 886 13.0000 Name: fare, Length: 184, dtype: float64 In [14]: sns.histplot(df_second["fare"]) Out[14]: <AxesSubplot:xlabel='fare', ylabel='Count'> 40 S 30 20 -0 10 20 40 50 60 70 In [16]: df_second.loc[df_second["fare"]>60]["survived"].mean() Out[16]: 0.2857142857142857 In [17]: df_second["survived"].mean() Out[17]: 0.47282608695652173 In []: In [19]: df_third=df.loc[df["class"]=="Third"] df_third[df_third["survived"]==1].shape[0] Out[19]: **119** In [20]: df_third.shape[0] Out[20]: **491** In [21]: df_third["fare"].mean() Out[21]: 13.675550101832997 In [22]: df_third["fare"].median() Out[22]: 8.05 In [24]: df_first=df.loc[df["class"]=="First"] df_first["survived"].mean() Out[24]: 0.6296296296297 In [25]: df["survived"].mean() Out[25]: 0.383838383838383838 In []: In []:

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