

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

# 1. Dataset Load karna (Titanic dataset sabse best hai)
df = sns.load_dataset('titanic')

# 2. Data ko dekhna (Task 2: EDA)
print("--- Data ki Pehli 5 Rows ---")
print(df.head())

print("\n--- Khali jaghen (Missing Values) ---")
print(df.isnull().sum())

# 3. Graphs Banana (Task 3: Visualization)
plt.figure(figsize=(10, 5))

# Graph 1: Kitne log bache aur kitne nahi
plt.subplot(1, 2, 1)
sns.countplot(data=df, x='survived', palette='viridis')
plt.title('Survival Count (0 = No, 1 = Yes)')

# Graph 2: Mardo aur Auraton ki survival rate
plt.subplot(1, 2, 2)
sns.barplot(data=df, x='sex', y='survived', palette='magma')
plt.title('Survival Rate by Gender')

plt.tight_layout()
plt.show()

# Ek Heatmap banana correlations dekhne ke liye
plt.figure(figsize=(8, 6))
sns.heatmap(df.corr(numeric_only=True), annot=True, cmap='coolwarm')
plt.title('Correlation Heatmap')
plt.show()
```

--- Data ki Pehli 5 Rows ---

	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

--- Khali jaghen (Missing Values) ---

survived	0
pclass	0
sex	0
age	177
sibsp	0
parch	0
fare	0
embarked	2
class	0
who	0
adult_male	0
deck	688
embark_town	2
alive	0
alone	0

dtype: int64

/tmp/ipython-input-4142348389.py:20: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue` and se

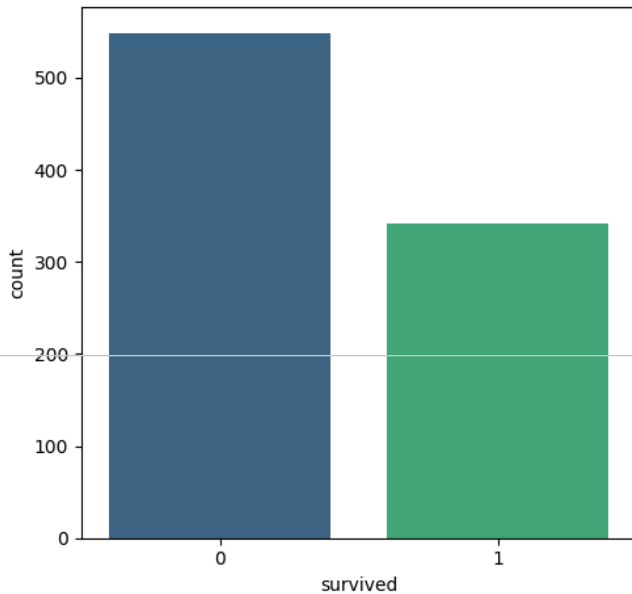
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/tmp/ipython-input-4142348389.py:25: FutureWarning:

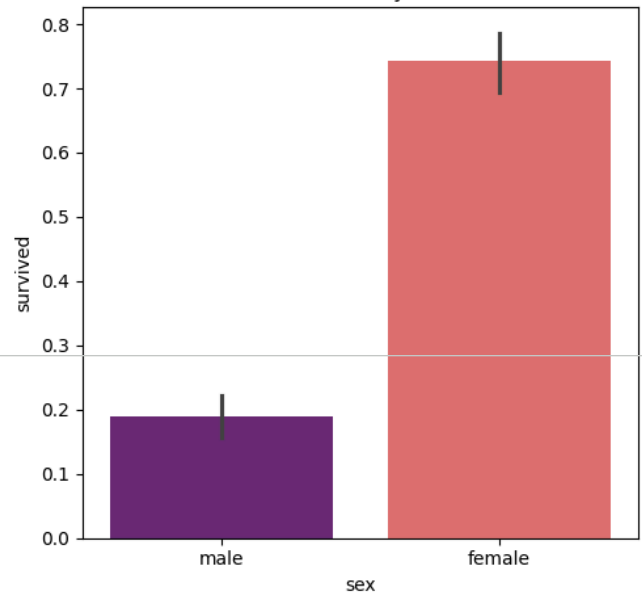
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Survival Count (0 = No, 1 = Yes)



Survival Rate by Gender



Correlation Heatmap

