

Exploratory Data Analysis - Titanic Dataset

Objective

Perform Exploratory Data Analysis on Titanic dataset using Python to find trends, patterns, and insights.

Dataset Info

Columns: Survived, Pclass, Sex, Age, Fare, Embarked

Sample:

Survived	Pclass	Sex	Age	Fare	Embarked
1	1 female	29	100.00	S	
0	3 male	35	7.25	C	
1	2 female	27	30.00	S	
1	1 female	22	71.00	S	
0	3 male	40	8.00	Q	

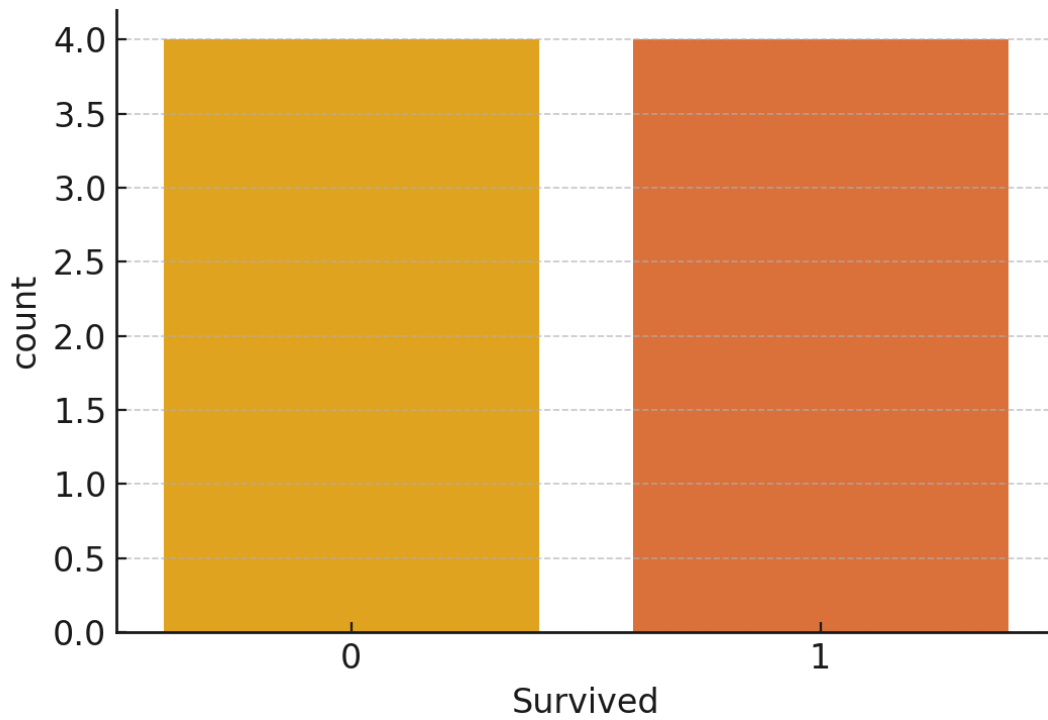
Summary Statistics

	Survived	Pclass	Age	Fare
count	8.00	8.00	8.00	8.00
mean	0.50	2.00	31.62	40.50
std	0.53	0.93	8.94	37.41
min	0.00	1.00	19.00	7.25
25%	0.00	1.00	25.75	7.94
50%	0.50	2.00	32.00	25.00
75%	1.00	3.00	37.00	73.25
max	1.00	3.00	45.00	100.00

1. Survival Count

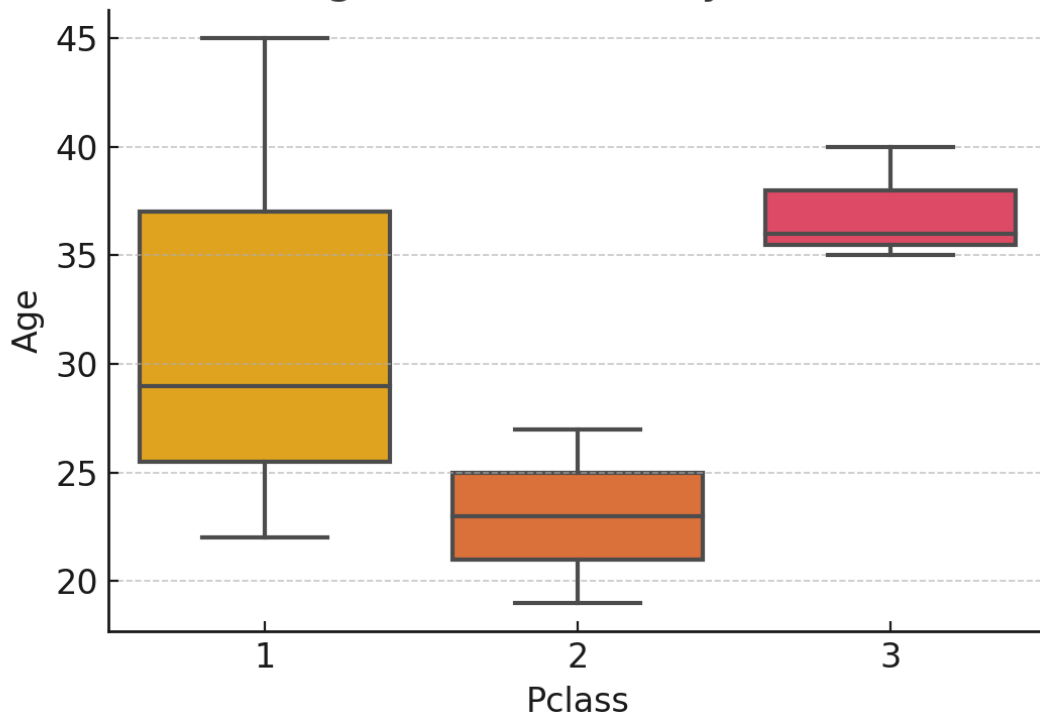
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Survival Count



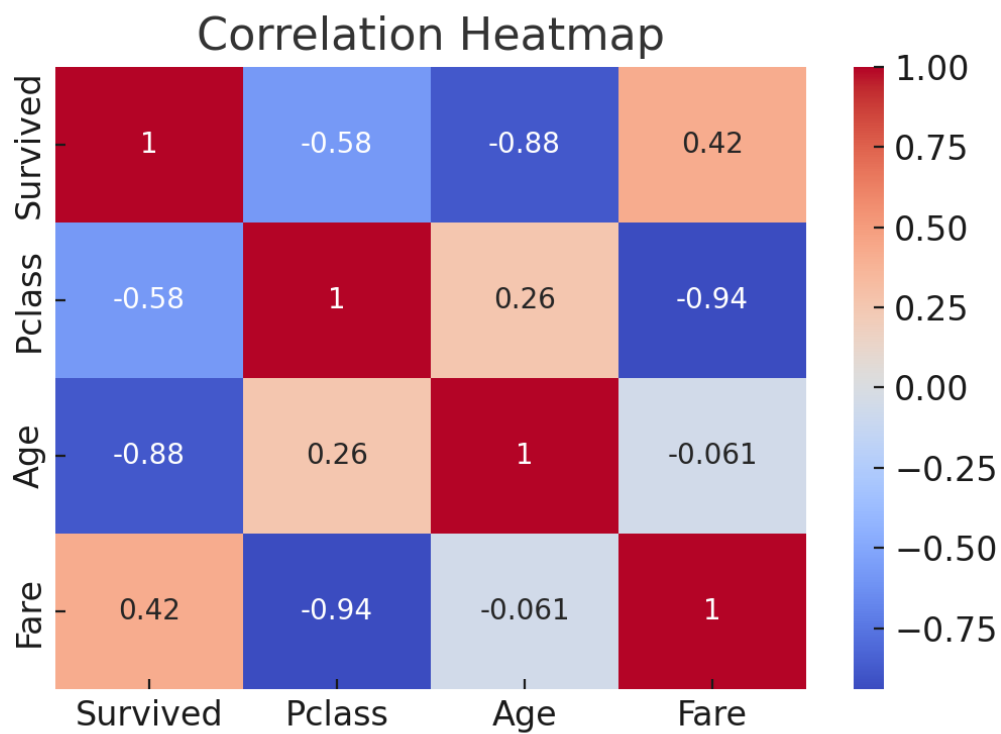
2. Age Distribution by Class

Age Distribution by Class



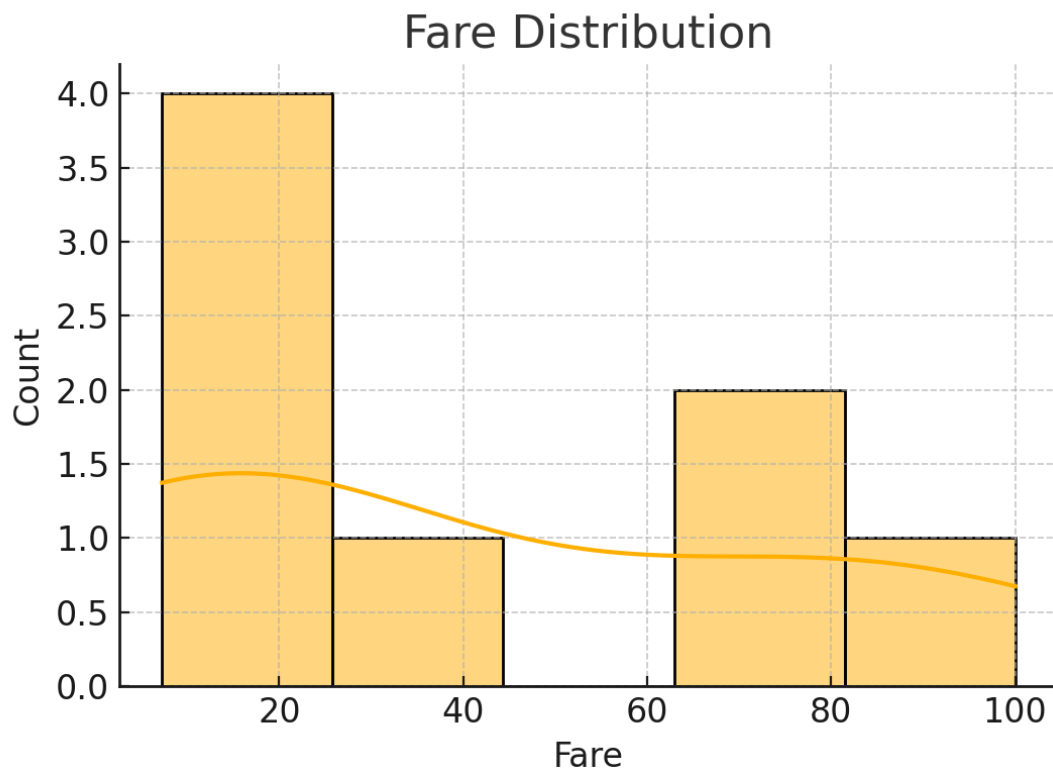
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3. Correlation Heatmap



4. Fare Distribution

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Key Observations

- Most passengers who survived were from Pclass 1 and were female.
- Fare has a strong correlation with survival and class.
- Age distribution shows younger passengers in Pclass 2.
- Fare distribution is right-skewed with some passengers paying significantly more.