

✍ Data Cleaning & Missing Value Handling

Step 2: Improve data quality before transformation

Rows 891	Columns 12	Total Missing Values 866
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📋 Missing Values by Column

	Column	Missing Count	Missing %
Age	Age	177	19.87
Cabin	Cabin	687	77.1
Embarked	Embarked	2	0.22

✖ Column-wise Missing Value Filling

Select column

Age

Select filling technique

Mean

Apply Filling

ⓧ Row-Level Cleaning

Drop rows with missing values

Drop duplicate rows

Reset index

Apply Row Cleaning

Rows (After) 891	Columns (After) 12	Remaining Missing Values 866
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	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22	1	0	A/5 21171	7.25	None	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Thayer)	female	38	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26	0	0	STON/O2. 3101282	7.925	None	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35	1	0	113803	53.1	C123	S
4	5	0	3	Allen, Mr. William Henry	male	35	0	0	373450	8.05	None	S

💡 Cleaning is user-controlled and column-specific.