

## Titanic Dataset Cleaning Project Overview

This project uses the Titanic passenger dataset from Kaggle, which includes 891 rows of data on passengers.

Key columns: PassengerId, Survived, Pclass, Name, Sex, Age, SibSp, Parch, Ticket, Fare, Cabin, Embarked.

Main issues addressed: Missing values (e.g., 177 in Age, 687 in Cabin), potential duplicates, inconsistent form

Goal: Produce a clean dataset ready for analysis, demonstrating skills in data imputation, standardization, and

Issue	Before	After
Missing Age	177 blanks	Filled with median (28)
Missing Cabin	687 blanks	Column dropped
Missing Embarked	2 blanks	Filled with 'S'
Duplicates	0	0
Outliers in Fare	Some >\$200	Capped at upper IQR bound (~\$65)
Formats	Mixed case in Sex/Embarked	Standardized (lowercase Sex, uppercase Embarked)

from the 1912 disaster.

Rating, and outliers in Age/Fare.  
d validation using Excel.

Method Used
Median imputation
Too sparse for use
Mode (most common)
Checked and none found
IQR method
Formulas like LOWER/UPPER