The Titanic dataset is a popular dataset used in data science and machine learning for exploring data cleaning, feature engineering, and predictive modeling. It contains information about passengers aboard the RMS Titanic, focusing on predicting survival based on various attributes.

### ****Dataset Overview****:

* **Objective**: Predict whether a passenger survived or not (Survived = 1 if the passenger survived, 0 otherwise).
* **Type of Problem**: Binary classification.

**Features:**

The Titanic dataset typically consists of the following features:

| **Column** | **Description** | **Data Type** |
| --- | --- | --- |
| PassengerId | Unique ID for each passenger (not useful for prediction). | Integer |
| Survived | Target variable: 0 = Did not survive, 1 = Survived. | Binary |
| Pclass | Passenger class: 1 = First, 2 = Second, 3 = Third. Higher classes are associated with better survival rates. | Ordinal (Integer) |
| Name | Name of the passenger (may contain useful information like titles). | String |
| Sex | Gender of the passenger (important predictor: females had higher survival rates). | Categorical |
| Age | Age of the passenger (may contain missing values). | Continuous (Float) |
| SibSp | Number of siblings/spouses aboard the Titanic with the passenger. | Integer |
| Parch | Number of parents/children aboard the Titanic with the passenger. | Integer |
| Ticket | Ticket number (can contain hidden patterns but often treated as less useful). | String |
| Fare | Ticket fare price (higher fares often correlate with better survival rates). | Continuous (Float) |
| Cabin | Cabin number (contains missing values; useful to infer class or proximity to lifeboats). | String |
| Embarked | Port of embarkation: C = Cherbourg, Q = Queenstown, S = Southampton. | Categorical |