

```
In [1]: #Name : Ashwini V Kayande  
#Roll No : 60  
#Section : 3A  
#Date :24/08/2024
```

```
In [3]: #Aim : To perform operation on Data manipulation
```

```
In [5]: import pandas as pd
```

```
In [7]: import os
```

```
In [9]: os.getcwd()
```

```
Out[9]: 'C:\\Users\\user'
```

```
In [11]: os.chdir("C:\\Users\\user\\Desktop")
```

```
In [15]: df=pd.read_csv("train.csv")
```

```
In [18]: df
```

Out[18]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...)	female	38.0	1	0	PC
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STC 31
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	1
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	3
...	
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	2
887	888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	1
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	
889	890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	1
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	3

891 rows × 12 columns

In [20]: `df.head()`

Out[20]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Tic
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	21
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/ 3101
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373

In [22]: `df.tail()`

Out[22]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Tic
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211
887	888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	112
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W 6
889	890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	111
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370

In [24]: `df.info()`

```

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 891 entries, 0 to 890
Data columns (total 12 columns):
#   Column      Non-Null Count  Dtype
---  -
0   PassengerId  891 non-null    int64
1   Survived     891 non-null    int64
2   Pclass       891 non-null    int64
3   Name         891 non-null    object
4   Sex          891 non-null    object
5   Age          714 non-null    float64
6   SibSp        891 non-null    int64
7   Parch        891 non-null    int64
8   Ticket       891 non-null    object
9   Fare         891 non-null    float64
10  Cabin        204 non-null    object
11  Embarked     889 non-null    object
dtypes: float64(2), int64(5), object(5)
memory usage: 83.7+ KB

```

In [26]: `df.describe()`

Out[26]:

	PassengerId	Survived	Pclass	Age	SibSp	Parc
count	891.000000	891.000000	891.000000	714.000000	891.000000	891.000000
mean	446.000000	0.383838	2.308642	29.699118	0.523008	0.381590
std	257.353842	0.486592	0.836071	14.526497	1.102743	0.806050
min	1.000000	0.000000	1.000000	0.420000	0.000000	0.000000
25%	223.500000	0.000000	2.000000	20.125000	0.000000	0.000000
50%	446.000000	0.000000	3.000000	28.000000	0.000000	0.000000
75%	668.500000	1.000000	3.000000	38.000000	1.000000	0.000000
max	891.000000	1.000000	3.000000	80.000000	8.000000	6.000000

In [28]: `df.shape`

Out[28]: (891, 12)

In [30]: `df.size`

Out[30]: 10692

In [32]: `df.ndim`

Out[32]: 2

In [34]: `df.columns`

Out[34]: Index(['PassengerId', 'Survived', 'Pclass', 'Name', 'Sex', 'Age', 'SibSp', 'Parch', 'Ticket', 'Fare', 'Cabin', 'Embarked'], dtype='object')

```
In [52]: if 'age' in df.columns:
          df = df.drop(labels='age', axis=1)
        else:
          print("Column 'age' does not exist in the DataFrame.")
```

Column 'age' does not exist in the DataFrame.

```
In [54]: df.drop(labels=2,axis=0)
```

Out[54]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	2101
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...)	female	38.0	1	0	1736
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	1135
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	37345
5	6	0	3	Moran, Mr. James	male	NaN	0	0	33091
...
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	21153
887	888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	11204
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W 661
889	890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	11138
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	37037

890 rows × 12 columns

In []: