

```
import pandas as pd
data=pd.read_csv(r"C:\Users\Niket Chauhan\OneDrive\Desktop\
dataset1.csv")
data
```

	PassengerId	Survived	Pclass	\
0	1	0	3	
1	2	1	1	
2	3	1	3	
3	4	1	1	
4	5	0	3	
..	...	...	...	
886	887	0	2	
887	888	1	1	
888	889	0	3	
889	890	1	1	
890	891	0	3	

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

	Parch	Ticket	Fare	Cabin	Embarked
0	0	A/5 21171	7.2500	NaN	S
1	0	PC 17599	71.2833	C85	C
2	0	STON/O2. 3101282	7.9250	NaN	S
3	0	113803	53.1000	C123	S
4	0	373450	8.0500	NaN	S
..	...	...	...	...	...

886	0	211536	13.0000	NaN	S
887	0	112053	30.0000	B42	S
888	2	W./C. 6607	23.4500	NaN	S
889	0	111369	30.0000	C148	C
890	0	370376	7.7500	NaN	Q

```
[891 rows x 12 columns]
```

```
print(data.columns)
```

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

```
print(data.dtypes)
```

PassengerId	int64
Survived	int64
Pclass	int64
Name	object
Sex	object
Age	float64
SibSp	int64
Parch	int64
Ticket	object
Fare	float64
Cabin	object
Embarked	object
dtype:	object

```
print(data.shape)
```

(891, 12)

```
data.isnull()
```

Ticket \ PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch
0	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False
...	...	...	...	...	...	...	...
...							

886	False	False	False	False	False	False	False	False
False								
887	False	False	False	False	False	False	False	False
False								
888	False	False	False	False	False	True	False	False
False								
889	False	False	False	False	False	False	False	False
False								
890	False	False	False	False	False	False	False	False
False								

	Fare	Cabin	Embarked
0	False	True	False
1	False	False	False
2	False	True	False
3	False	False	False
4	False	True	False
..	...	...	...
886	False	True	False
887	False	False	False
888	False	True	False
889	False	False	False
890	False	True	False

[891 rows x 12 columns]

```
data.isnull().sum()
```

```

PassengerId      0
Survived          0
Pclass           0
Name             0
Sex              0
Age             177
SibSp            0
Parch            0
Ticket           0
Fare             0
Cabin           687
Embarked         2
dtype: int64

```

```

print(data['Sex'].unique())
print(data['Embarked'].unique())

```

```

['male' 'female']
['S' 'C' 'Q' nan]

```

```

print("Columns:", data.columns)
print("Unique values in Sex:", data['Sex'].unique())
print("Unique values in Embarked:", data['Embarked'].unique())

```

```
data['Age'] = data['Age'].fillna(data['Age'].mean())

data['Embarked'] = data['Embarked'].fillna(data['Embarked'].mode()[0])

data['Sex'] = data['Sex'].map({'male': 0, 'female': 1})
data['Embarked'] = data['Embarked'].map({'C': 0, 'Q': 1, 'S': 2})

print(data.head())
```

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

```
Unique values in Sex: ['male' 'female']
```

```
Unique values in Embarked: ['S' 'C' 'Q' 'nan']
```

```
   PassengerId  Survived  Pclass  \
0             1         0       3
1             2         1       1
2             3         1       3
3             4         1       1
4             5         0       3
```

```

                                     Name  Sex  Age  SibSp
Parch  \
0      Braund, Mr. Owen Harris        0  22.0      1
0
1  Cumings, Mrs. John Bradley (Florence Briggs Th...  1  38.0      1
0
2      Heikkinen, Miss. Laina          1  26.0      0
0
3  Futrelle, Mrs. Jacques Heath (Lily May Peel)    1  35.0      1
0
4      Allen, Mr. William Henry        0  35.0      0
0
```

```

      Ticket    Fare  Cabin  Embarked
0    A/5 21171   7.2500   NaN        2.0
1    PC 17599  71.2833   C85        0.0
2  STON/O2. 3101282   7.9250   NaN        2.0
3    113803  53.1000  C123        2.0
4    373450   8.0500   NaN        2.0
```