5. Import any CSV file to Pandas DataFrame and perform the following: a. Visualize the first and last 10 records b. Do required statistical operations on the given columns. c. Find the count and uniqueness of the given categorical values.

```
import pandas as pd
import numpy as np
import seaborn as sns
```

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```
df = pd.read_csv("titanic_dataset.csv")
df
```

Visualize the first and last 10 records

```
df.head(10)
```

```
df.tail(10)
```

```
df.describe()
```

Statistical operations on the given columns

```
df.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
```

```
df['Fare'].mean()
```

```
32.204207968574636
```

```
df['Fare'].median()
```

```
14.4542
```

```
df['Fare'].mode()
```

```
0     8.05
Name: Fare, dtype: float64
```

```
df['Fare'].std()
```

```
49.6934285971809
```

```
df['Fare'].var()
```

```
2469.436845743116
```

c. Find the count and uniqueness of the given categorical values.

```
df['Sex'].value_counts()
```

```
male      577
female    314
Name: Sex, dtype: int64
```

```
df['Sex'].value_counts(ascending=True)
```

```
female    314
male      577
Name: Sex, dtype: int64
```

```
df['Fare'].value_counts(bins=7)
```

```
(-0.513, 73.19]       789
(73.19, 146.38]        71
(146.38, 219.57]       15
(219.57, 292.76]       13
(439.139, 512.329]      3
(292.76, 365.949]       0
(365.949, 439.139]      0
Name: Fare, dtype: int64
```

```
df['Fare'].value_counts().max
```

```
<bound method NDFrame._add_numeric_operations.<locals>.max of 8.0500     43
13.0000    42
7.8958     38
7.7500     34
26.0000    31
           ..
35.0000     1
28.5000     1
6.2375      1
14.0000     1
10.5167     1
Name: Fare, Length: 248, dtype: int64>
```

We can see most people paid under 73.19 for their ticket.

```
df['Cabin'].value_counts()
```

```
B96 B98        4
G6             4
C23 C25 C27    4
C22 C26        3
F33            3
              ..
E34            1
C7             1
C54            1
```

```
B96 B98        4
G6             4
C23 C25 C27    4
C22 C26        3
F33            3
              ..
E34            1
C7             1
C54            1
E36            1
C148           1
Name: Cabin, Length: 147, dtype: int64
```

```
df['Embarked'].value_counts()
```

```
S    644
C    168
Q     77
Name: Embarked, dtype: int64
```