Name:Rutuja Gorakh Tembare

Roll No.CC-79

PRN:202401030006

Make up session: Assignment 1

Take one dataset.Find any 10 grains for the given dataset. Find solutions using pandas.

Dataset:

import pandas as pd

import seaborn as sns

Load Titanic dataset

titanic = sns.load_dataset('titanic')

Quick look at data

print(titanic.head())

Find 10 grains using pandas

1.Total number of passenger :

total_passengers = len(titanic)

```python
print("Total passengers:", total_passengers)
```

2.Number of surviors:

```python
survivors = titanic['survived'].sum()

print("Survivors:", survivors)
```

3.Percentage of passengers who survived:

```python
survival_rate = titanic['survived'].mean() * 100

print("Survival rate (%):", survival_rate)
```

4.Average age of passengers :

```python
average_age = titanic['age'].mean()

print("Average age:", average_age)
```

5.Average age of survivors:

```python
average_age_survivors = titanic[titanic['survived'] == 1]['age'].mean()

print("Average age of survivors:", average_age_survivors)
```

6.Numbers of make Vs female passengers:

```python
gender_counts = titanic['sex'].value_counts()

print(gender_counts)
```

7.Survival rate by gender:

```python
survival_by_gender = titanic.groupby('sex')['survived'].mean() * 100

print(survival_by_gender)
```

8.Survival rate by class(1st,2nd,3rd)

```python
survival_by_class = titanic.groupby('pclass')['survived'].mean() * 100

print(survival_by_class)
```

9.Average fare paid by class:

```python
fare_by_class = titanic.groupby('pclass')['fare'].mean()
```

```
print(fare_by_class)
```

10.Number of passengers with family aboard(Siblings/spouses):

```
has_family = titanic[titanic['sibsp'] > 0].shape[0]
print("Passengers with family aboard:", has_family)
```