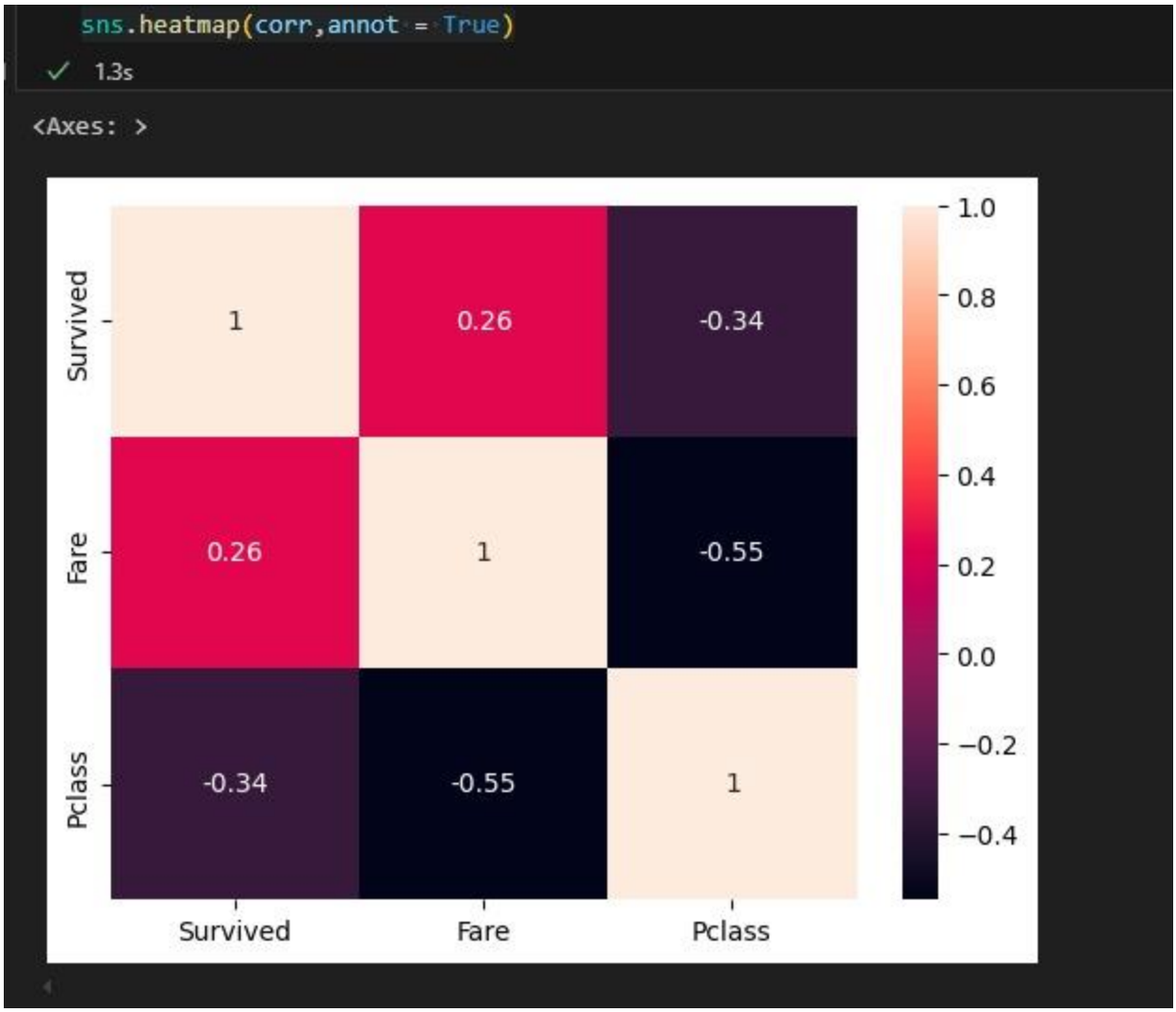
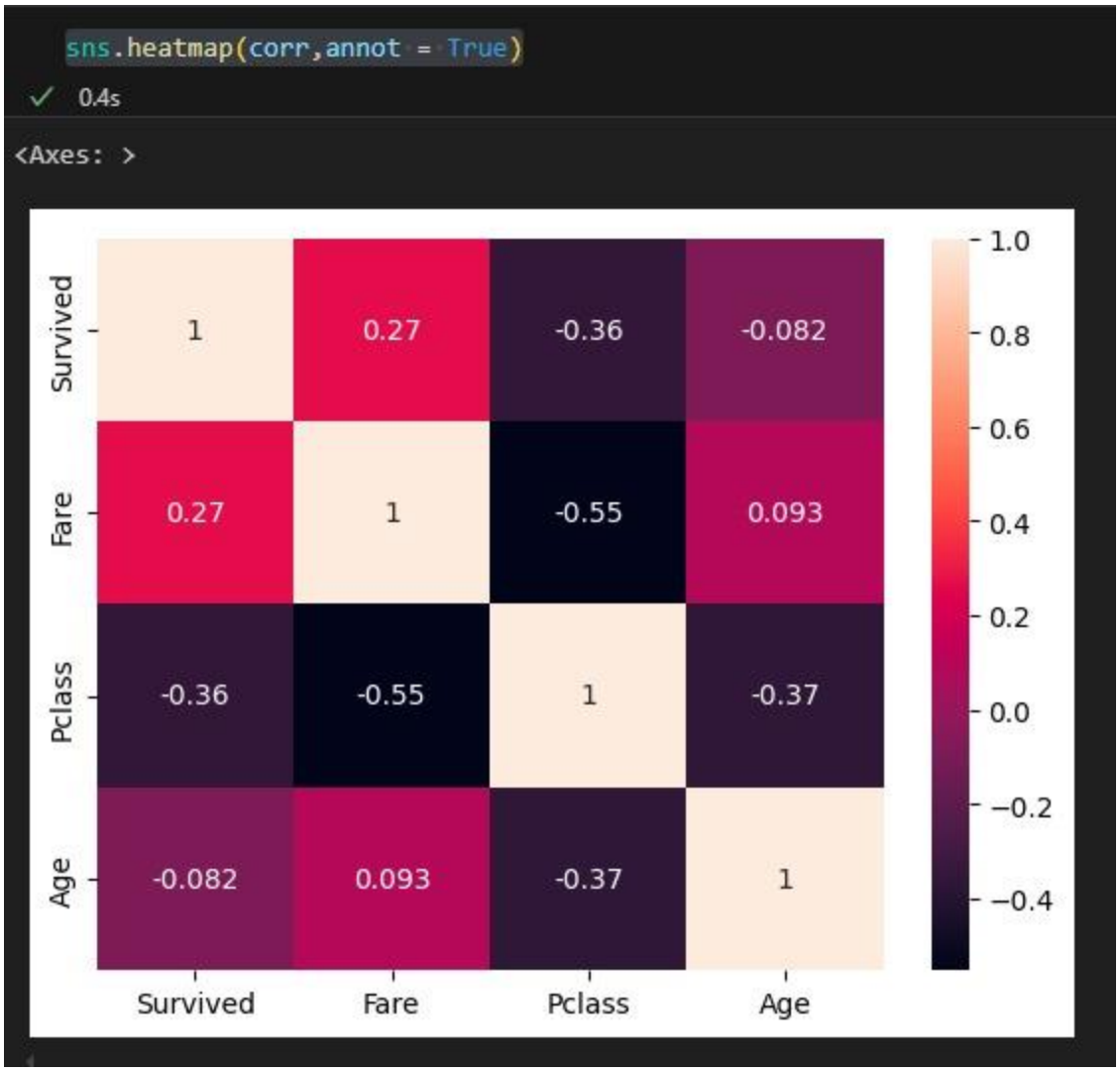


First Heatmap (with features: Survived, Fare, Pclass)
Observations:
Survived vs Fare: There is a positive correlation (0.26) — higher fare passengers had slightly better survival chances.

Survived vs Pclass: There is a negative correlation (-0.34) — passengers from higher classes (lower Pclass value) had better survival rates.

Fare vs Pclass: A strong negative correlation (-0.55) — as Pclass increases (lower socio-economic status), the fare generally decreases.

Summary:
Wealthier and higher-class passengers were more likely to survive.
Fare and Pclass are fairly strongly related (r = -0.55).

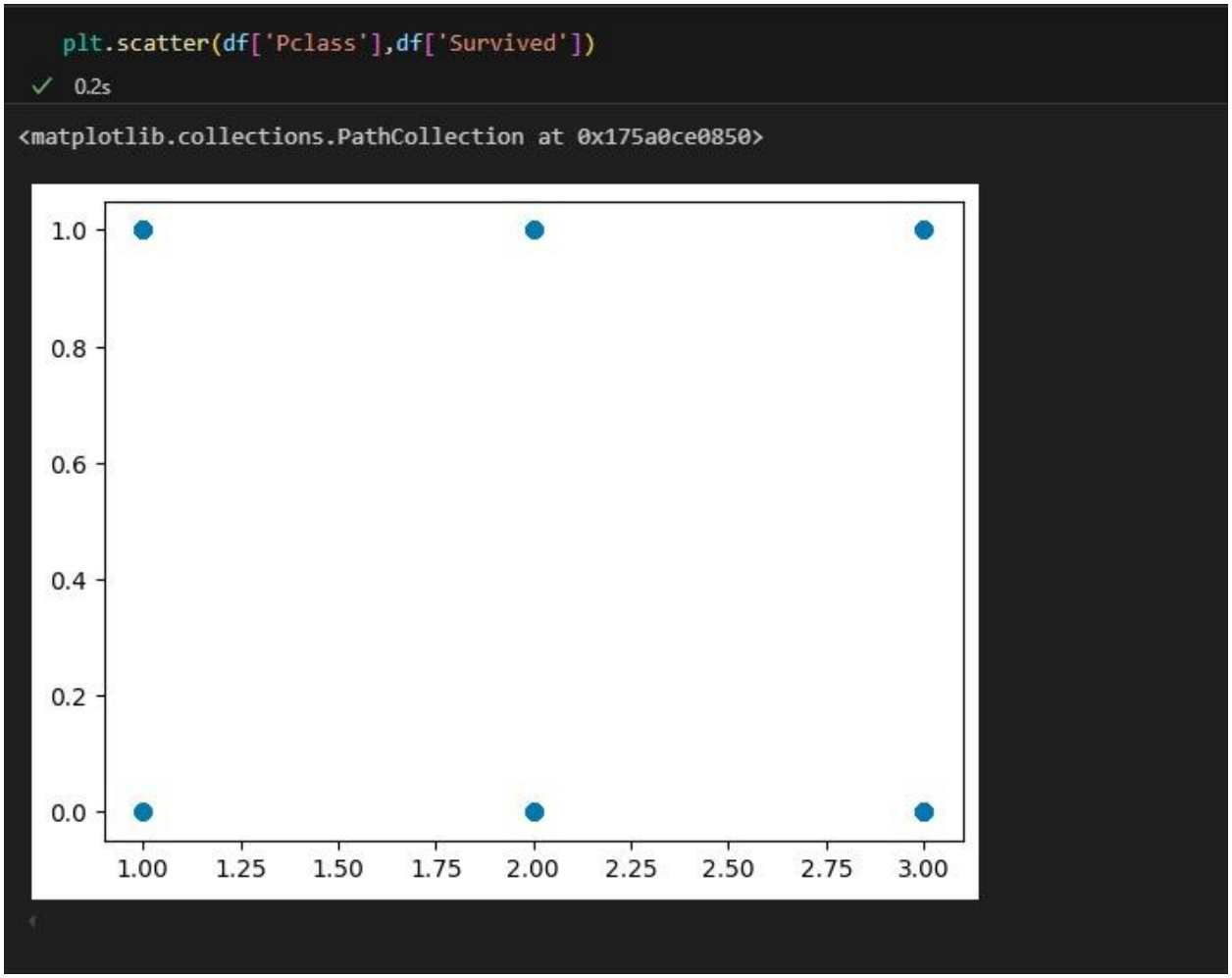


Second Heatmap (with features: Survived, Fare, Pclass, Age)
Observations:
Survived vs Fare: Similar to before, positive correlation (0.27).

Survived vs Pclass: Slightly stronger negative correlation (-0.36) — confirming that higher class = higher survival.
Survived vs Age: Weak negative correlation (-0.082) — older passengers had very slightly lower chances of survival, but this relationship is very weak.
Fare vs Pclass: Strong negative correlation (-0.55) again.
Fare vs Age: Weak positive correlation (0.093) — older passengers paid slightly higher fares, but again, very weak.
Pclass vs Age: Negative correlation (-0.37) — higher-class passengers tended to be slightly younger.

Summary:
Adding Age shows it has very little impact on survival or fare compared to Pclass and Fare.
Pclass continues to be an important feature both for fare and survival.

Scatter Plot1



X-axis: Pclass (Passenger Class — 1, 2, 3)
Y-axis: Survived (0 = Did not survive, 1 = Survived)

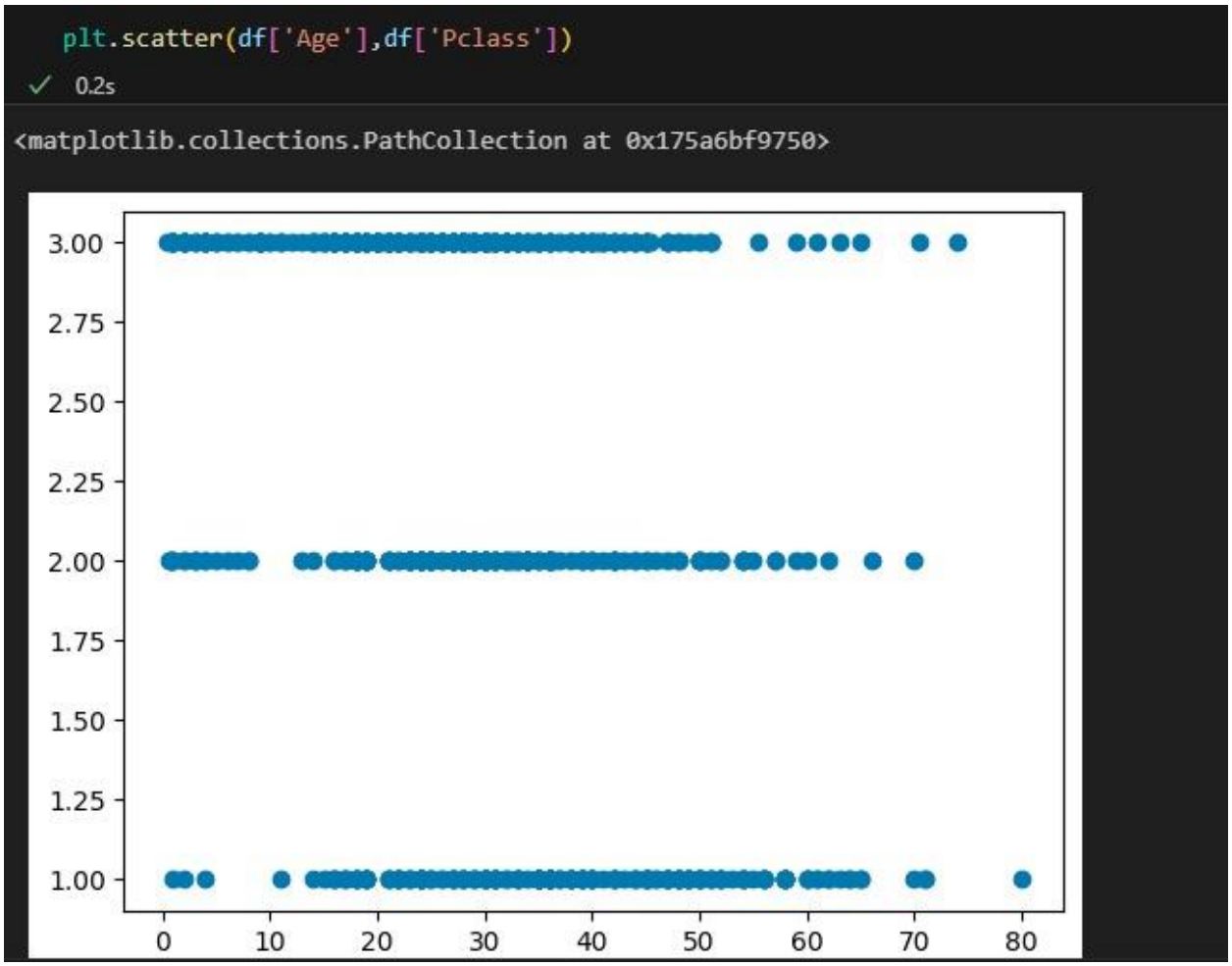
Each dot represents a combination of Pclass and Survival status.
Key Points:
For Pclass 1:
There are both survivors (Survived = 1) and non-survivors (Survived = 0).

For Pclass 2:
Again, both survivors and non-survivors are present.

For Pclass 3:
Same, both survived and non-survived cases exist.

Additional Insight:
No Pclass has a 100% survival or 0% survival rate — survival is mixed across all classes.

Scatter Plot 2

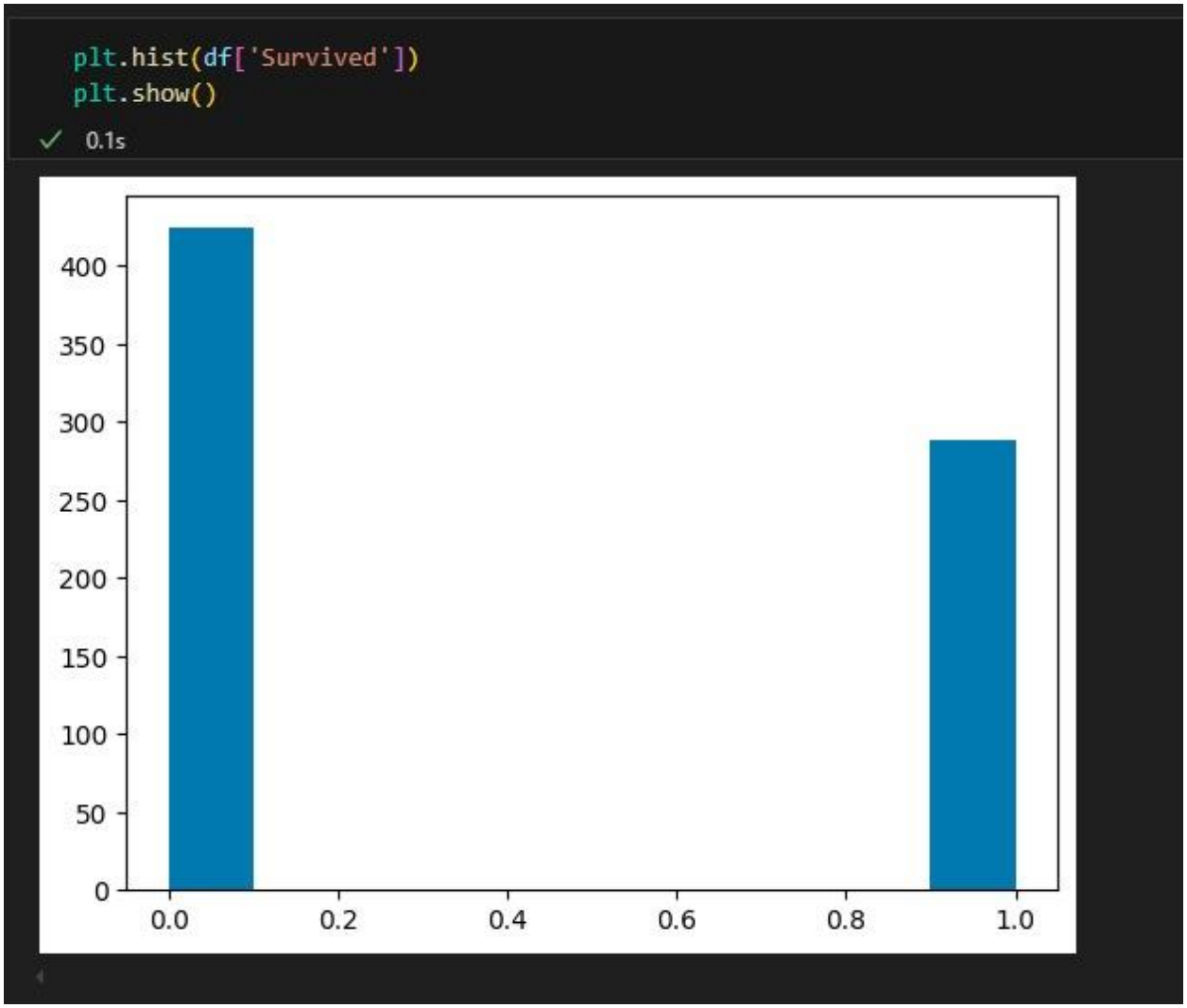


(Scatter Plot of Age vs Pclass):

What it shows:
The scatter plot displays the relationship between passengers' Age (x-axis) and their Pclass (Passenger Class, y-axis).

Observations:
There are three distinct horizontal lines corresponding to the three Pclass values: 1, 2, and 3.

Passengers of all age groups (from infants to elderly around 80 years old) are spread across each class.
There seems to be a higher concentration of passengers in the third class (Pclass=3), indicated by the denser cluster of points.
Young passengers (children) are present in all classes but slightly more in lower classes (Pclass 2 and 3).
Older passengers are present mainly in the first class (Pclass=1), suggesting possibly wealthier older individuals traveling.



Second Plot (Histogram of Survived):

What it shows:
The histogram shows the distribution of the 'Survived' feature (0 = Did not survive, 1 = Survived).

Observations:
The count of passengers who did not survive (Survived = 0) is higher compared to those who survived.
Visually, the bar for 0 is significantly taller than the bar for 1.
This indicates that the majority of passengers did not survive the incident.
There is still a substantial number of survivors, but they are clearly fewer compared to non-survivors.