

```

In [1]: # Import necessary libraries
import pandas as pd
import seaborn as sns

# Load the Titanic dataset
titanic = sns.load_dataset('titanic')

# Split the dataset into smaller DataFrames for demonstration
passenger_info = titanic[['sex', 'age', 'class', 'embark_town', 'survived']]
fare_info = titanic[['class', 'fare', 'embark_town']].copy()

# Rename columns for clarity
fare_info.rename(columns={'embark_town': 'town'}, inplace=True)

# Merge datasets on common columns (class and embark_town)
merged_data = pd.merge(passenger_info, fare_info, left_on=['class', 'embark_town'], right_on=['class', 'town'])

# Add a calculated column for analysis: Fare per Age
merged_data['fare_per_age'] = merged_data['fare'] / (merged_data['age'].replacing([0], 1))

# Perform advanced groupby to analyze survival rates by class and town
grouped_data = merged_data.groupby(['class', 'embark_town']) \
    .agg({'survived': 'mean', 'fare_per_age': 'mean'}) \
    .reset_index()

# Rename columns for better readability
grouped_data.rename(columns={'survived': 'survival_rate', 'fare_per_age': 'avg_fare_per_age'}, inplace=True)

# Display the final DataFrame
print("Grouped Analysis:")
print(grouped_data)

```

```

Grouped Analysis:
   class embark_town  survival_rate  avg_fare_per_age
0  First   Cherbourg      0.694118         3.202421
1  First  Queenstown      0.500000         2.386364
2  First  Southampton      0.582677         3.246506
3  Second   Cherbourg      0.529412         3.156891
4  Second  Queenstown      0.666667         0.314167
5  Second  Southampton      0.463415         1.640745
6   Third   Cherbourg      0.378788         2.245734
7   Third  Queenstown      0.375000         0.847125
8   Third  Southampton      0.189802         1.079096

```