

## Lesson 10: Merging and Joining

Data Science with Python – BSc Course

45 Minutes

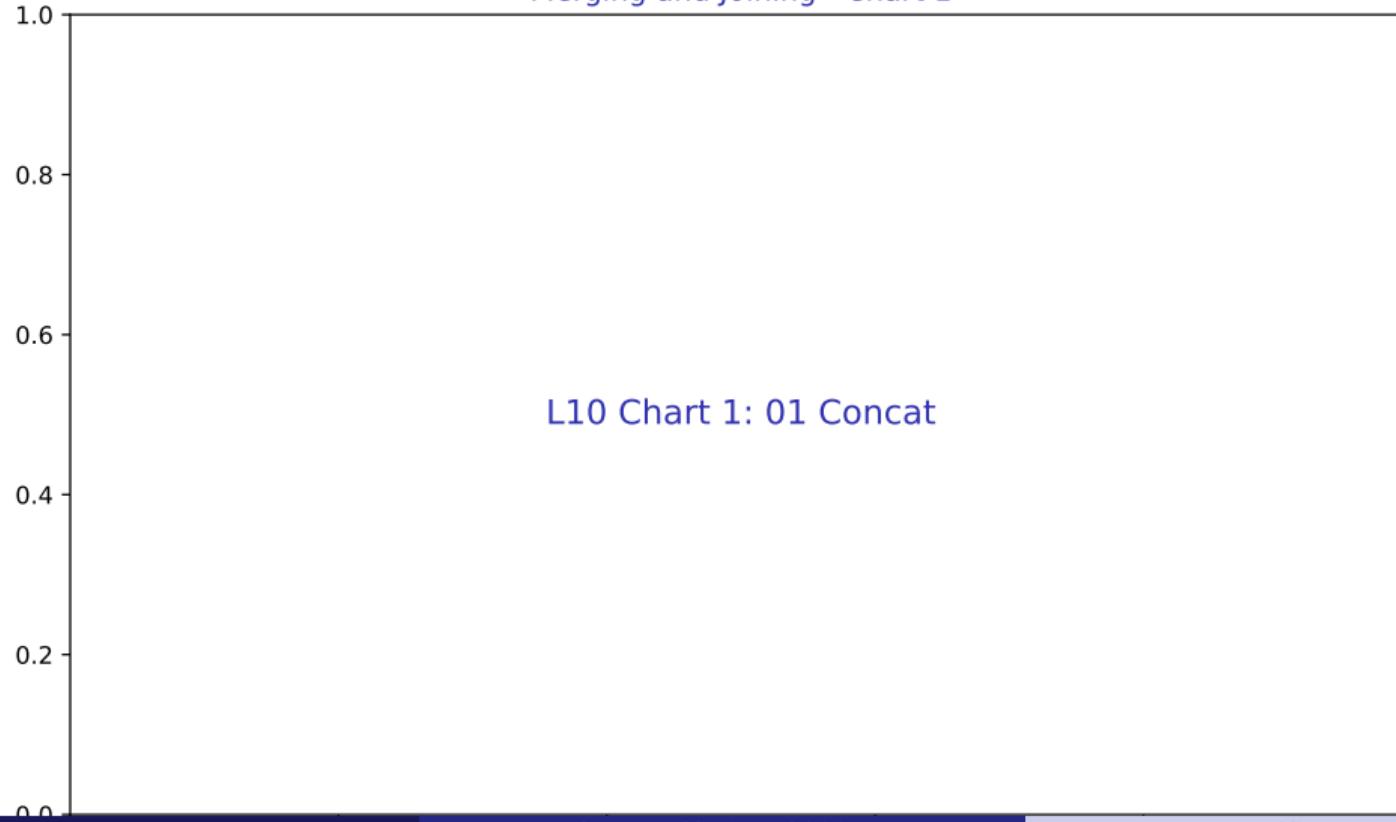
# Learning Objectives

**After this lesson, you will be able to:**

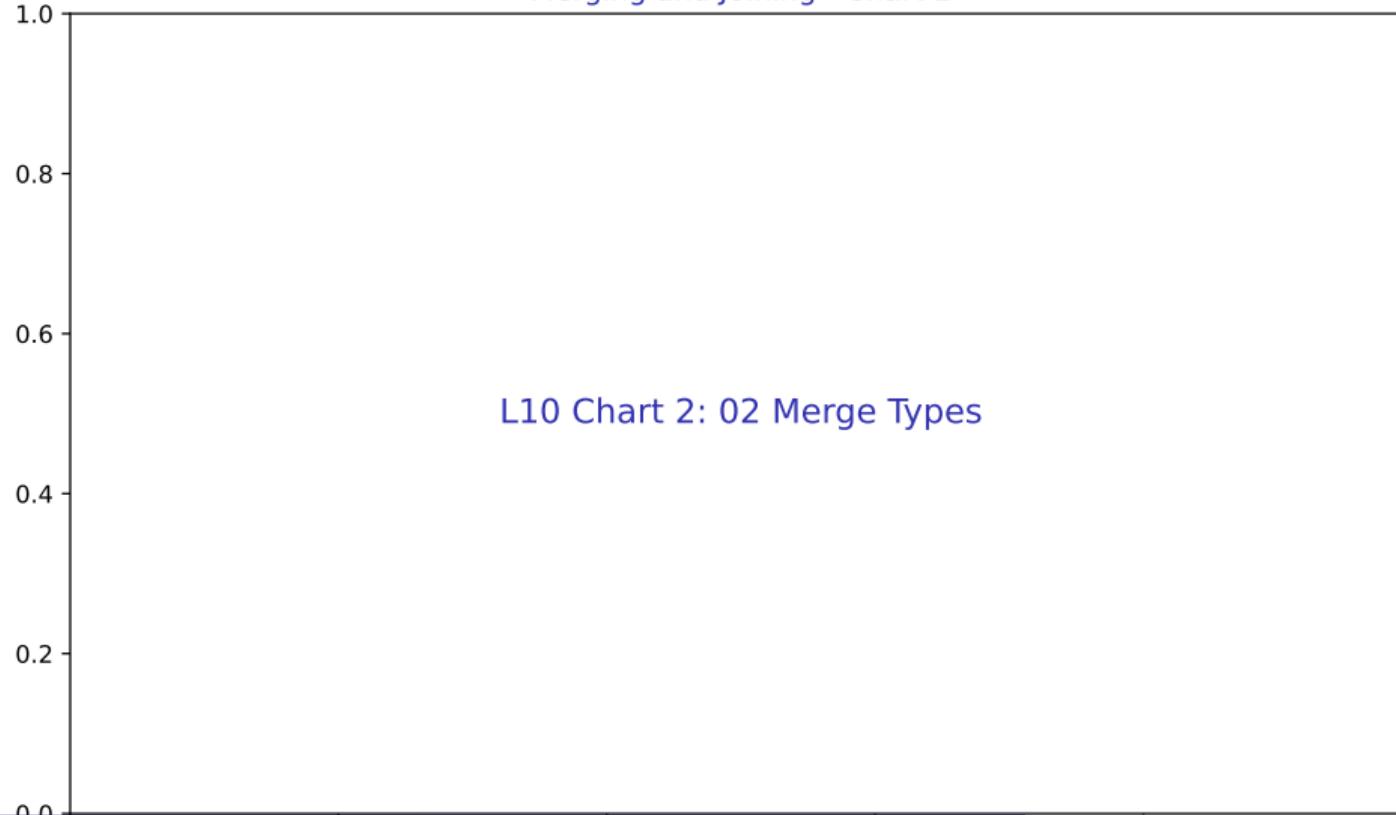
- pd.concat() for stacking
- pd.merge() for SQL-style joins
- Join types: inner, outer, left, right
- Handling key columns

**Finance application: Stock data processing and analysis**

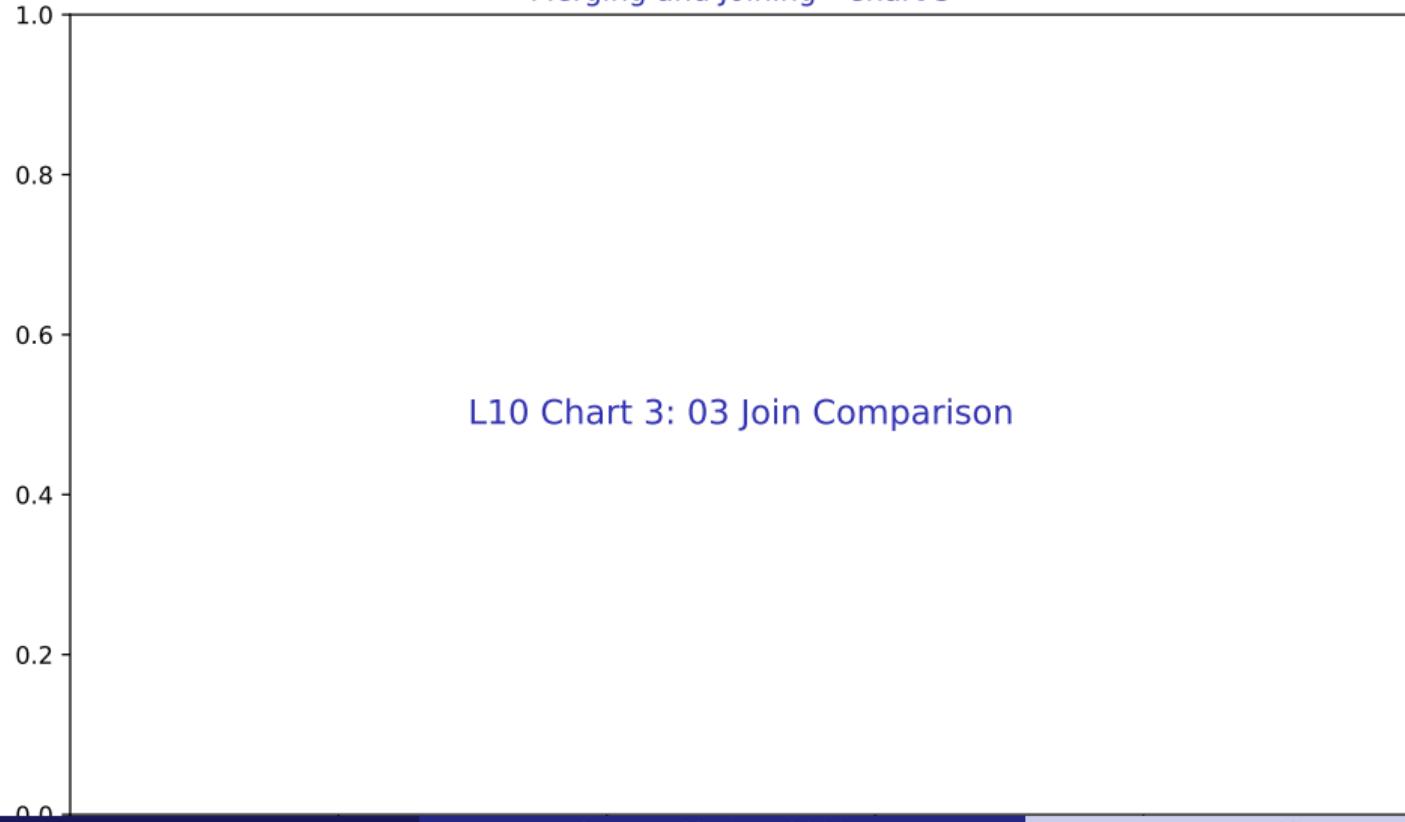
## Merging and Joining - Chart 1



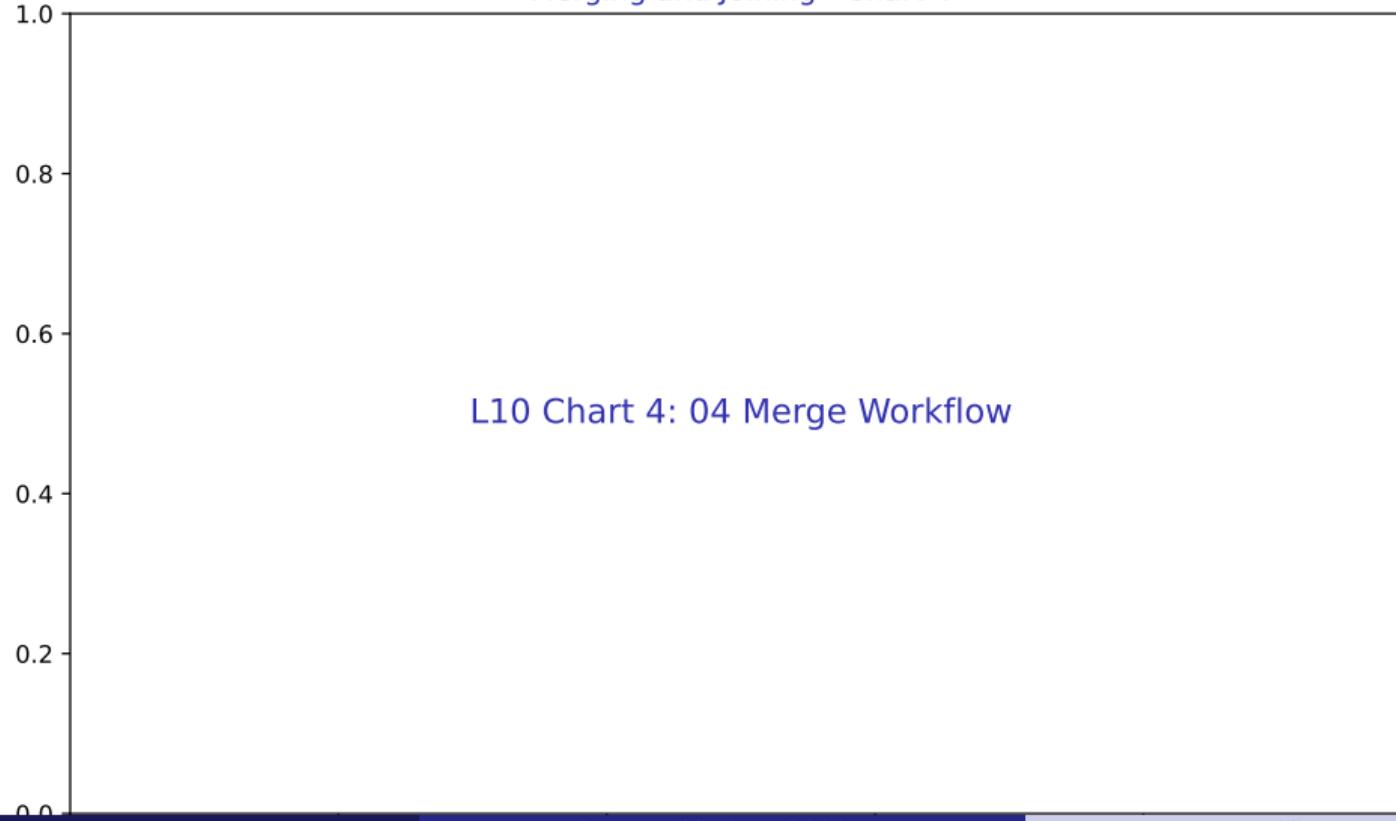
Merging and Joining - Chart 2



Merging and Joining - Chart 3

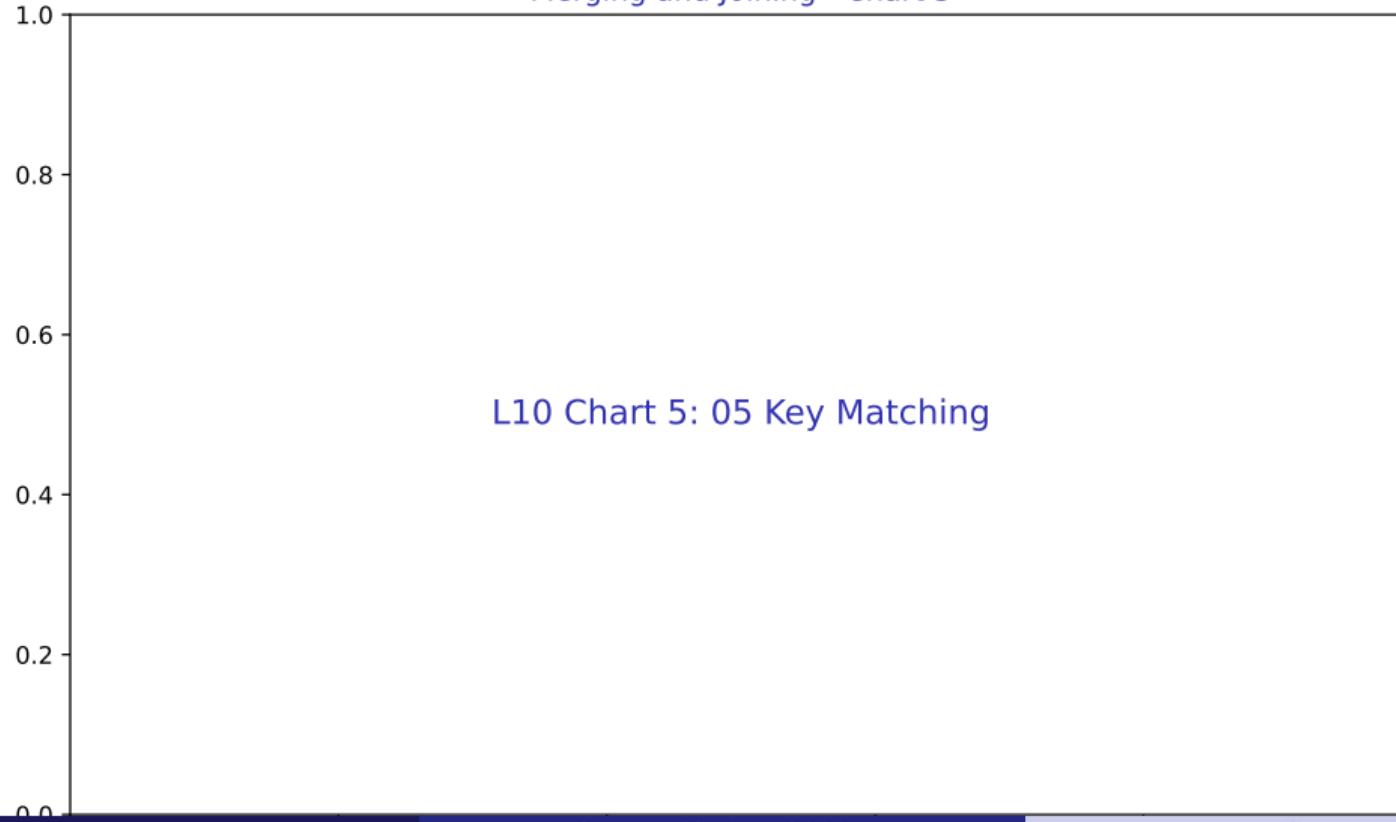


Merging and Joining - Chart 4

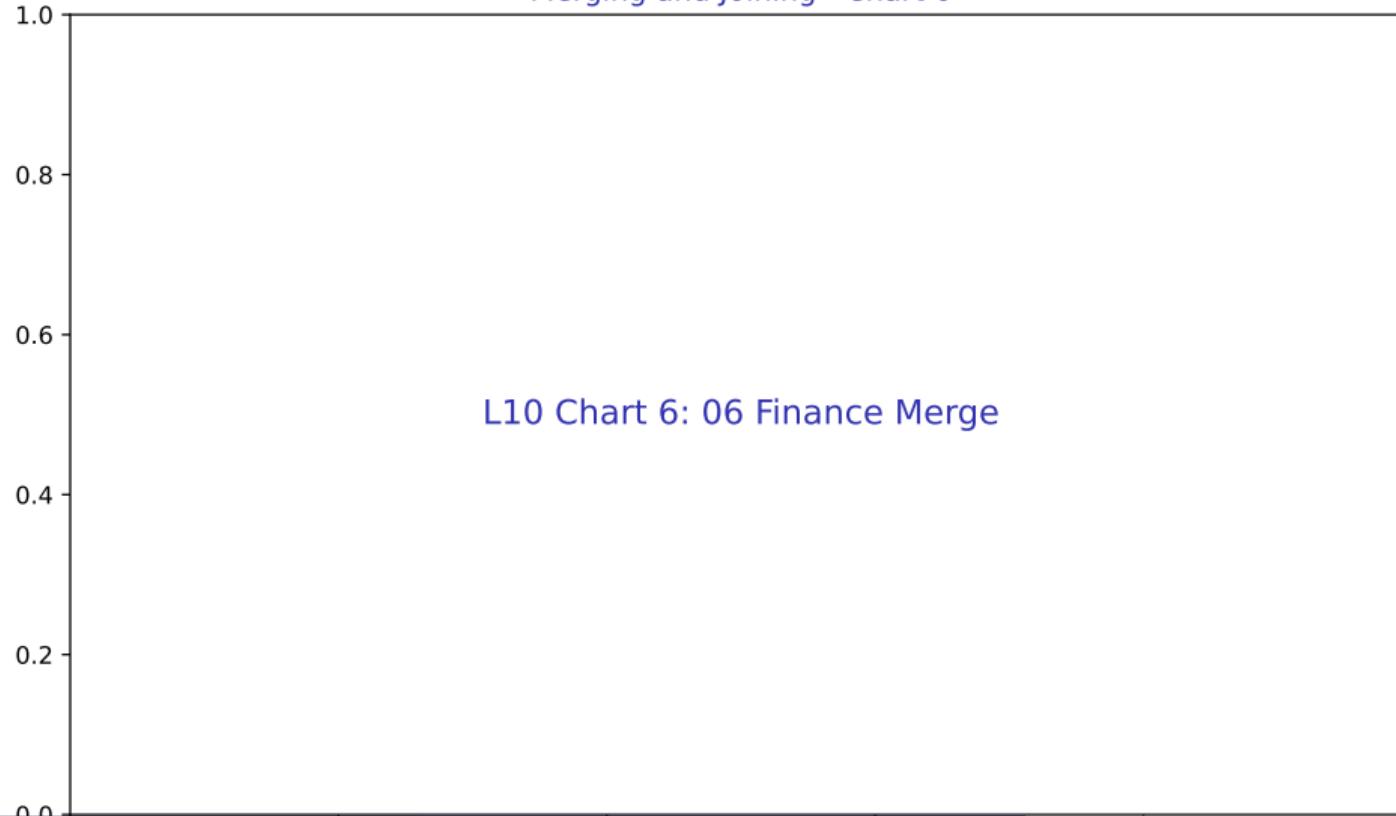


## 05 Key Matching

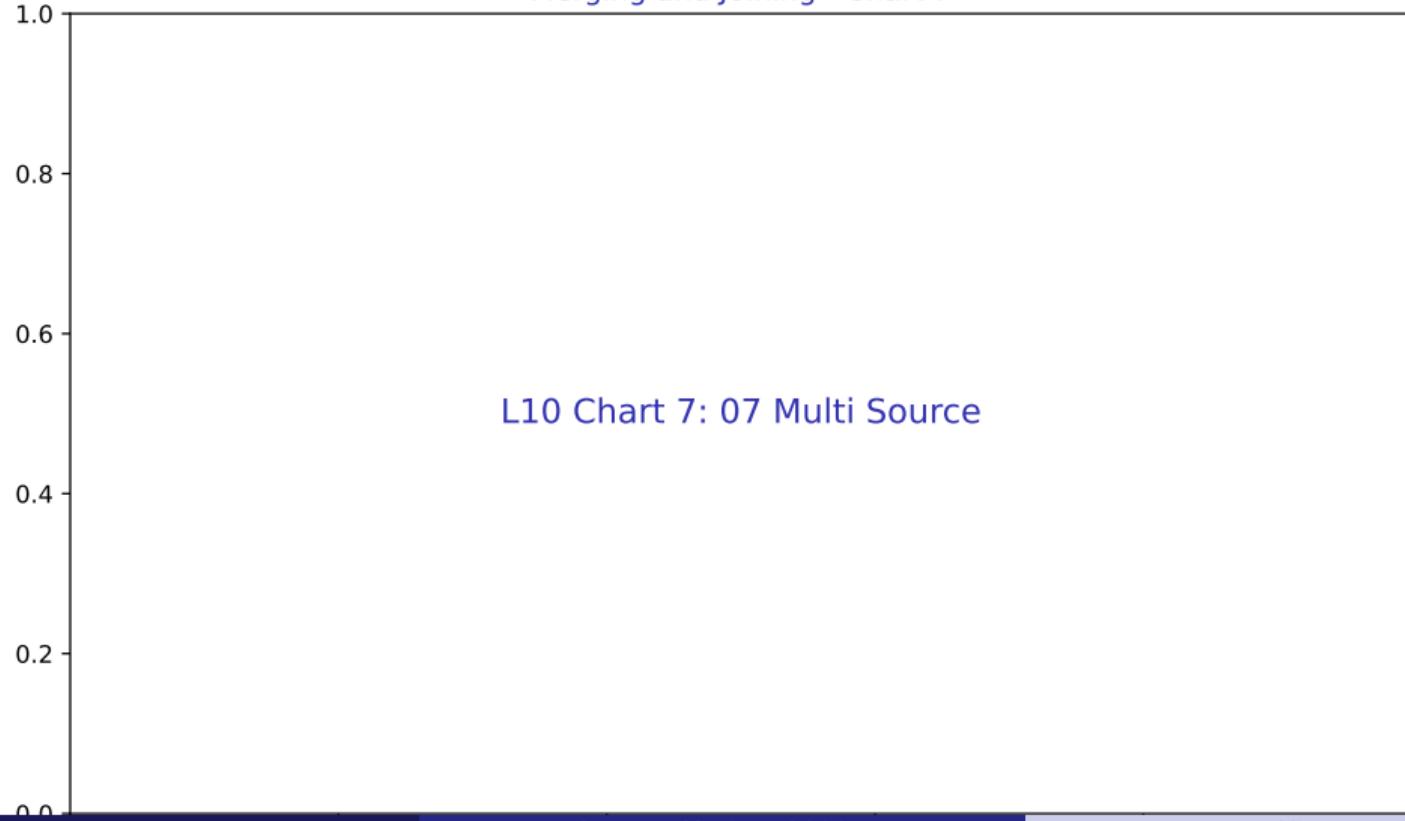
Merging and Joining - Chart 5



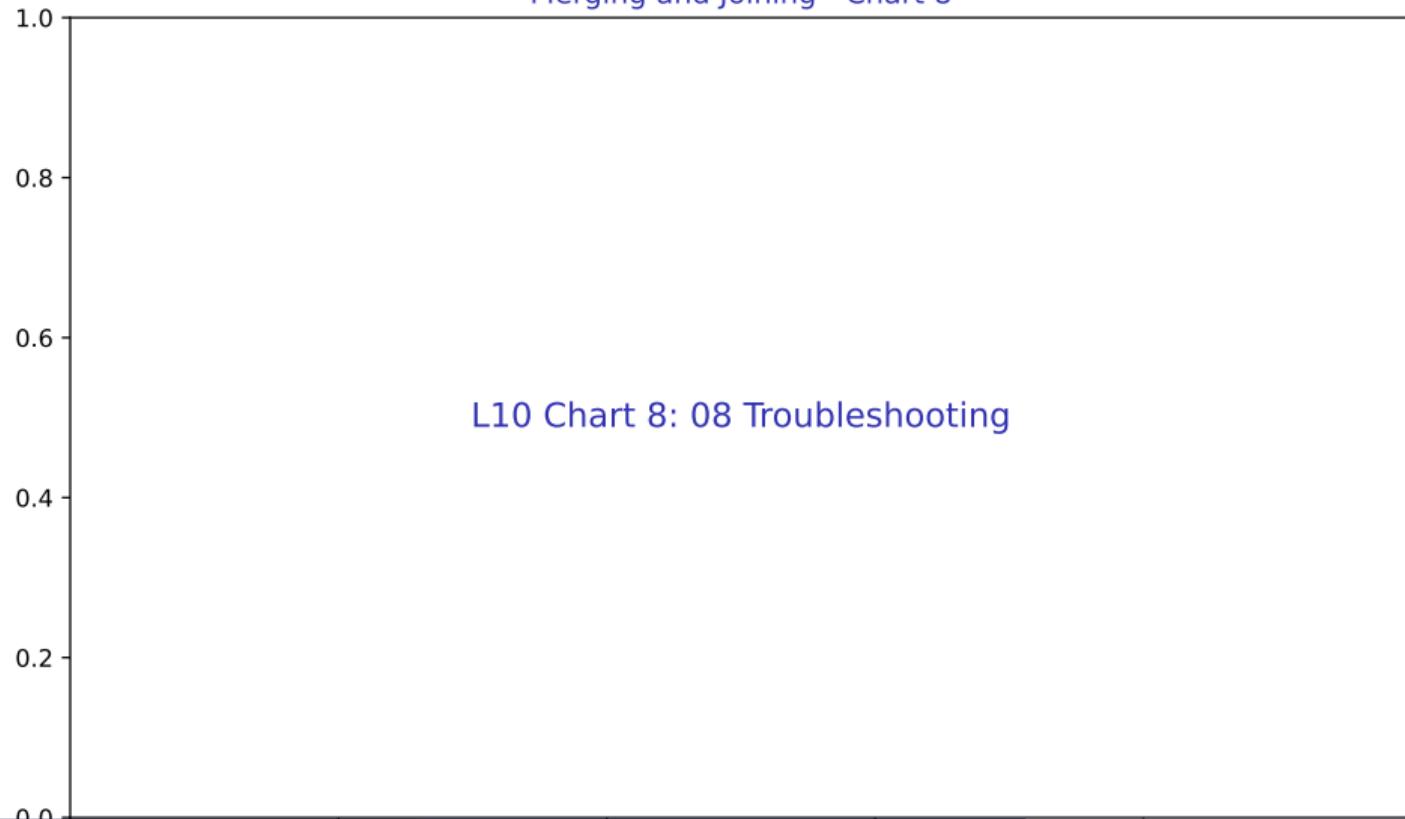
Merging and Joining - Chart 6



Merging and Joining - Chart 7



### Merging and Joining - Chart 8



### Key Takeaways:

- pd.concat() for stacking
- pd.merge() for SQL-style joins
- Join types: inner, outer, left, right
- Handling key columns

**Practice:** Apply these concepts to the stock price dataset.