

Concept: Pandas Basics

Pandas is a library for data analysis and manipulation. It provides two key structures: Series (1D) and DataFrame (2D).

DataFrames are like spreadsheets; they have labeled rows and columns. Pandas integrates seamlessly with Numpy for numerical operations.

Common operations: reading CSV files, indexing, filtering, grouping, and summarizing data.

Use `df.head()` to preview, `df.describe()` for statistics, and `df.info()` for metadata.

```
import pandas as pd
data = {'Name': ['Liam', 'Emma'], 'Age': [21, 22]}
df = pd.DataFrame(data)
print(df)

print('Average age:', df['Age'].mean())
```