

What is Pandas?

Pandas is used for **data manipulation and analysis**.

It allows you to:

- Work with **tables** (just like Excel or Google Sheets!)
 - Clean and filter data easily
 - Read from CSV, Excel, JSON, etc.
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Installing Pandas

```
pip install pandas
```

Basic Pandas Example

```
import pandas as pd

# Create a DataFrame (table-like structure)
data = {
    'Name': ['Alice', 'Bob', 'Charlie'],
    'Age': [24, 30, 22],
    'Score': [85, 90, 95]
}

df = pd.DataFrame(data)

print(df)

# Access column
print("Names:", df['Name'])

# Filter rows
print("Scores above 90:")
print(df[df['Score'] > 90])
```

Reading CSV Files with Pandas

```
df = pd.read_csv('students.csv')
print(df.head()) # Show first 5 rows
```

Practice Task (Pandas)

1. Create a DataFrame with 3 students: name, age, and grade.
2. Add a column called "Passed" where grade > 50 = True.
3. Filter and display only students who passed.