

Python Pandas Cheat Sheet

**Become Data Analyst
With Me!**

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Prepared by Nazish Khalid



Basics

```
import pandas as pd          # Import pandas  
df = pd.read_csv('file.csv') # Load CSV
```

View Data

```
df.head()          # First 5 rows  
df.tail()          # Last 5 rows  
df.info()          # Structure & types  
df.describe()      # Summary stats  
df.shape           # Rows, columns  
df.columns         # Column names  
df.dtypes          # Data types
```

Select & Access

```
df['col']           # Single column  
df[['col1', 'col2']] # Multiple columns  
df.iloc[o]         # Row by position  
df.loc[o]          # Row by label  
df.loc[o, 'col']   # Specific cell
```

Filter & Sort

<code>df[df['Age'] > 30]</code>	# Filter rows
<code>df.sort_values('Age')</code>	# Sort ascending
<code>df.sort_values('Age', ascending=False)</code>	# Descending

Clean Data

<code>df.isnull().sum()</code>	# Check nulls
<code>df.dropna()</code>	# Remove NaNs
<code>df.fillna(o)</code>	# Replace NaNs
<code>df.drop('col', axis=1)</code>	# Drop column
<code>df.rename(columns={'old': 'new'})</code>	# Rename
<code>df['Age'] = df['Age'].astype(int)</code>	# Change type

Modify Data

<code>df['new'] = df['col1'] + df['col2']</code>	# Add column
<code>df.groupby('col').mean()</code>	# Group & agg
<code>df.pivot_table(index='A', columns='B', values='C')</code>	
<code>df.merge(df2, on='key')</code>	# Join dfs

Apply Functions

<code>df['col'].apply(len)</code>	<code># Apply function</code>
<code>df['col'].map({'A': 1})</code>	<code># Map values</code>
<code>df.apply(lambda r: r['A'] + r['B'], axis=1)</code>	<code># Row-wise</code>

Plot (Quick View)

<code>df['col'].hist()</code>	<code># Histogram</code>
<code>df.plot(x='A', y='B')</code>	<code># Line plot</code>
<code>sns.boxplot(x='col', data=df)</code>	<code># Boxplot</code>

Save/Load

<code>df.to_csv('file.csv')</code>	<code># Save as CSV</code>
<code>df.to_pickle('df.pkl')</code>	<code># Save as pickle</code>

Timeline

Becoming a Data Analyst is a step-by-step journey. This timeline guides you through key skills each week, helping you grow from beginner to confident analyst. Stay curious, stay consistent, and let the data lead the way.

