

# **Data processing with Pandas & Data plotting with Matplotlib**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Welcome and Introduction (Pandas)

*Wednesday 13 March 2024 10:00 (30 minutes)*

Contribution ID: 2

Type: **not specified**

# The Series Datatype

*Wednesday 13 March 2024 10:30 (30 minutes)*

Learn about the fundamental data type used for labelled sequential data.

**Session Classification:** Introduction to Pandas

Contribution ID: 3

Type: **not specified**

## Introduction to DataFrames

*Wednesday 13 March 2024 11:00 (30 minutes)*

Get to know a more advanced data type to deal with multi-dimensional data.

**Session Classification:** Introduction to Pandas

Contribution ID: 4

Type: **not specified**

## Accessing Data

*Wednesday 13 March 2024 12:30 (30 minutes)*

Learn about multiple ways to access subsections of a Series or a DataFrame and singular elements in it.

**Session Classification:** Introduction to Pandas

Contribution ID: 5

Type: **not specified**

## Filtering Data

*Wednesday 13 March 2024 13:00 (30 minutes)*

Learn how to create filter masks to separate out the interesting data.

**Session Classification:** Introduction to Pandas

Contribution ID: 6

Type: **not specified**

## Modifying Data

*Wednesday 13 March 2024 13:30 (30 minutes)*

Learn how to add and manipulate existing data in a DataFrame or Series.

**Session Classification:** Introduction to Pandas

Contribution ID: 7

Type: **not specified**

## Hands-on Exercise (Pandas) Loading Data

*Wednesday 13 March 2024 14:30 (1h 30m)*

Try out your newly learned skills on a real-live data set.

In this section, you will learn how to load a complex data set and re-shape it into a usable form based on the provided metadata. The instructors are available to give advice and feedback.

**Session Classification:** Introduction to Pandas



Contribution ID: 8

Type: **not specified**

## Welcome and Introduction (Matplotlib)

*Thursday 14 March 2024 10:00 (30 minutes)*

Contribution ID: 9

Type: **not specified**

# Introduction to Pyplot

*Thursday 14 March 2024 10:30 (30 minutes)*

Pyplot is a collection of shortcuts for common tasks. Learn how to use it to create basic plots.

**Session Classification:** Introduction to Matplotlib

Contribution ID: **10**

Type: **not specified**

## Multiple Plots

*Thursday 14 March 2024 11:00 (30 minutes)*

Learn how to create multiple plots and arrange them in a single figure.

**Session Classification:** Introduction to Matplotlib

Contribution ID: **11**

Type: **not specified**

## Object-oriented Style

*Thursday 14 March 2024 12:30 (45 minutes)*

Learn about an alternative approach to setting up plots.

**Session Classification:** Introduction to Matplotlib

Contribution ID: 12

Type: **not specified**

## Matplotlib + Pandas

*Thursday 14 March 2024 13:15 (45 minutes)*

Learn how you can combine Pandas and Matplotlib for quick plotting.

**Session Classification:** Introduction to Matplotlib

Contribution ID: 13

Type: **not specified**

## Hands-on Exercise (Matplotlib)

*Friday 15 March 2024 12:30 (1h 30m)*

Try out your newly learned skills on a set of real-live use cases. The instructors are available to give advice and feedback.

**Session Classification:** Introduction to Matplotlib

Contribution ID: 14

Type: **not specified**

## Hands-on Exercise (Pandas) Cleaning Data

*Thursday 14 March 2024 14:30 (1h 30m)*

The loaded data set still has quite a few inconsistencies, missing values and formatting peculiarities that need to be dealt with before it is ready for analysis.

**Session Classification:** Introduction to Pandas

Contribution ID: 15

Type: **not specified**

## Hands-on Exercise (Pandas) Analyzing Data

*Friday 15 March 2024 10:00 (1h 30m)*

Analyze the now cleaned data set to extract new knowledge about the climatic conditions at the chosen location.

**Session Classification:** Introduction to Pandas