# Data processing with Pandas & Data plotting with Matplotlib

# **Report of Contributions**

Contribution ID: 1 Type: not specified

# Welcome and Introduction (Pandas)

Wednesday 21 February 2024 10:00 (30 minutes)

Contribution ID: 2 Type: not specified

# **The Series Datatype**

Wednesday 21 February 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 21 February 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 21 February 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

Filtering Data

Contribution ID: 5 Type: **not specified** 

# **Filtering Data**

Wednesday 21 February 2024 13:00 (30 minutes)

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

Session Classification: Introduction to Pandas

Modifying Data

Contribution ID: 6 Type: not specified

# **Modifying Data**

Wednesday 21 February 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 21 February 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 22 February 2024 10:00 (30 minutes)

Contribution ID: 9 Type: not specified

## **Introduction to Pyplot**

Thursday 22 February 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

Multiple Plots

Contribution ID: 10 Type: not specified

# **Multiple Plots**

Thursday 22 February 2024 11:00 (30 minutes)

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

Session Classification: Introduction to Matplotlib

Object-oriented Style

Contribution ID: 11 Type: not specified

# **Object-oriented Style**

Thursday 22 February 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 22 February 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 23 February 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 22 February 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 23 February 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