

uCertify

Data Wrangling with Python



Lesson



Practice test



Live-Lab

3. 1 Introduction
- 2 Introduction to Data Wrangling with Python
- 3 Advanced Data Structures and File Handling
- 4 Introduction to NumPy, Pandas, and Matplotlib
- 5 A Deep Dive into Data Wrangling with Python
- 6 Getting Comfortable with Different Kinds of Data Sources
- 7 Learning the Hidden Secrets of Data Wrangling
- 8 Advanced Web Scraping and Data Gathering
- 9 RDBMS and SQL
- 10 Application of Data Wrangling in Real Life

10.

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Use Data Wrangling with Python course and lab to gain an understanding of the concepts and methodologies associated with it. The data wrangling course and lab provide an understanding of the processes used along with the knowledge of the most popular tools and techniques in the domain. The Python course and lab also demonstrate how to use the Python back-end and extract/transform data from an array of sources including the Internet.

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- 2015
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- 2017
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- 2018
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- 2019
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- 2020
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1: Introduction

- About the Course
- Learning Objectives
- Approach

- Audience
- Minimum Hardware Requirements
- Software Requirements
- Conventions
- Installation and Setup

2: Introduction to Data Wrangling with Python

- Introduction
- Python for Data Wrangling
- Lists, Sets, Strings, Tuples, and Dictionaries
- Summary

3: Advanced Data Structures and File Handling

- Introduction
- Advanced Data Structures
- Basic File Operations in Python
- Summary

4: Introduction to NumPy, Pandas, and Matplotlib

- Introduction
- NumPy Arrays
- Pandas DataFrames
- Statistics and Visualization with NumPy and Pandas
- Summary

5: A Deep Dive into Data Wrangling with Python

- Introduction
- Subsetting, Filtering, and Grouping
- Detecting Outliers and Handling Missing Values
- Concatenating, Merging, and Joining
- Useful Methods of Pandas
- Summary

6: Getting Comfortable with Different Kinds of Data Sources

- Introduction
- Reading Data from Different Text-Based (and Non-Text-Based) Sources

- Introduction to BeautifulSoup 4 and Web Page Parsing
- Summary

7: Learning the Hidden Secrets of Data Wrangling

- Introduction
- Advanced List Comprehension and the zip Function
- Data Formatting
- Identify and Clean Outliers
- Summary

8: Advanced Web Scraping and Data Gathering

- Introduction
- The Basics of Web Scraping and the BeautifulSoup Library
- Reading Data from XML
- Reading Data from an API
- Fundamentals of Regular Expressions (RegEx)
- Summary

9: RDBMS and SQL

- Introduction
- Refresher of RDBMS and SQL
- Using an RDBMS (MySQL/PostgreSQL/SQLite)
- Reading Data from a Database in SQLite
- Summary

10: Application of Data Wrangling in Real Life

- Introduction
- Applying Your Knowledge to a Real-life Data Wrangling Task
- An Extension to Data Wrangling
- Summary

33
VIDEOS

03:13
HOURS

12 

47

PRE-ASSESSMENTS QUESTIONS

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POST-ASSESSMENTS QUESTIONS

13  **Live Labs**

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Introduction to Data Wrangling with Python

- Sorting a List
- Generating a List
- Deleting a Value from a Dictionary
- Accessing and Setting Values in a Dictionary
- Slicing a String

Advanced Data Structures and File Handling

- Implementing a Queue
- Splitting a String
- Implementing Multi-Element Membership Checking

- Implementing a Stack
- Opening a File and Printing its Content

Introduction to NumPy, Pandas, and Matplotlib

- Generating Arrays Using `arange` and `linspace`
- Multiplying Two Arrays
- Adding Two NumPy Arrays
- Creating a NumPy Array
- Filtering Elements from a Matrix
- Stacking Arrays

A Deep Dive into Data Wrangling with Python

- Subsetting a DataFrame
- Grouping a DataFrame
- Dropping the Missing Values
- Replacing Missing Values in a DataFrame
- Joining DataFrames
- Concatenating Data Frames
- Counting Values

Getting Comfortable with Different Kinds of Data Sources

- Bypassing the Headers of a CSV File
- Reading Data from a CSV File
- Stacking URLs from a Document Using `bs4`
- Counting Tags

Learning the Hidden Secrets of Data Wrangling

- Using the `zip` Function
- Using a One-Liner Generator Expression
- Using a Generator Expression
- Using the `format` Function

- Using a Box Plot

Advanced Web Scraping and Data Gathering

- Checking the Status of the Web Request
- Extracting Text from a Section
- Traversing an XML Tree
- Checking Whether the Input String Begins with a Specific Word
- Matching Pattern
- Finding the Number of Words in a List That End with ing

RDBMS and SQL

- Deleting the Data
- Using Joins
- Using the Foreign Key
- Updating Data
- Using the ORDER BY Clause
- Using the SELECT Statement
- Using the SELECT Statement

Application of Data Wrangling in Real Life

- Skipping the First Row of the Data Set

45
LIVE LABS

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VIDEO TUTORIALS

07
MINUTES

14 



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