

Data Analysis with Python Course

<https://bit.ly/dapslides>

AGENDA

15 MIN

Learning Outcomes + Introduction

2.5 HRS

Practice Notebook

10MIN

Debrief + Q & A

5 MIN

Checkout Form



AfterWork

LEARNING OUTCOMES

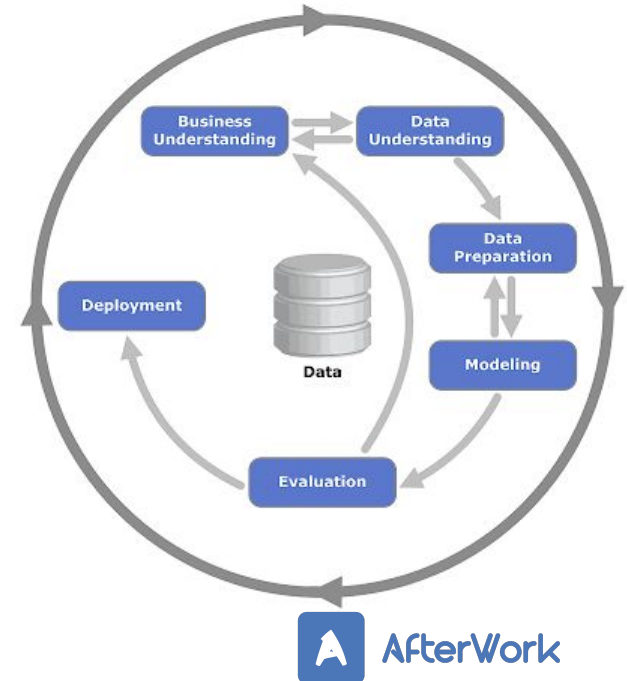
- Perform **ranking** while selecting records in a dataset.
- **Filter for records** from a dataset through the use of conditions.
- Perform **sorting** in ascending and descending order while selecting records from a dataset.
- Perform **descriptive analysis** using aggregate functions.
- Create **summary tables** using group by and pivot_table functions.
- Develop **evidence-based conclusions** and **recommendations** from my analysis.

OVERVIEW

- **Data Analysis**
 - Data analytics is used in business to help organizations make better business decisions.
 - The process of data analysis uses analytical and logical reasoning to gain information from the data.
- **Types of Data Analysis**
 - Descriptive Analysis
 - Diagnostic Analysis
 - Predictive Analysis
 - Prescriptive Analysis

Data Analysis with Python

CRISP-DM



OVERVIEW

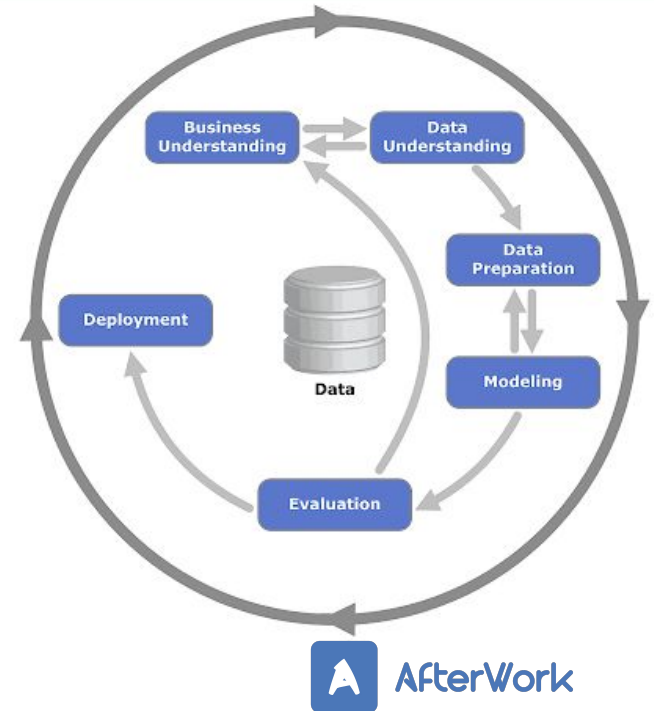
- **Descriptive Analysis**
 - Descriptive data analysis looks at past data and tells what happened. This is often used when tracking Key Performance Indicators (KPIs), revenue, sales leads, and more.
- **Diagnostic Analysis**
 - Diagnostic data analysis aims to determine why something happened. Once your descriptive analysis shows that something negative or positive happened, diagnostic analysis can be done to figure out the reason.
- **Predictive Analysis**
 - Predictive data analysis predicts what is likely to happen in the future. In this type of research, trends are derived from past data which are then used to form predictions about the future.
- **Prescriptive Analysis**
 - Prescriptive data analysis combines the information found from the previous 3 types of data analysis and forms a plan of action for the organization to face the issue or decision.

OVERVIEW

- **Descriptive Analysis**
 - This type of analysis looks at past data and tells what happened.
 - This is often used when tracking Key Performance Indicators (KPIs), revenue, sales leads, and more.
- **Data Analysis Techniques**
 - Selecting Records
 - Ranking
 - Sorting
 - Aggregate functions
 - Grouping
 - Pivot Tables

Data Analysis with Python

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Deliverables

- Exploratory data analysis (EDA) reports
- Data visualizations
- Statistical analysis reports
- Predictive models
- Dashboards
- Presentation slides



Data analysis concepts

- Data exploration
- Selecting columns
- Filtering
- Sorting
- Aggregate functions
- Grouping

Practice work

Practice Notebook

<https://bit.ly/DataAnalysisPythonNB>



Next steps

<https://bit.ly/dapythonfeedback>

