Welcome to ineuron.ai

Data Manipulation using Pandas

Description:

This course will teach students the fundamentals of data analysis using the highly popular Pandas library in Python programming. The course will cover data manipulation and cleaning techniques using the popular Python pandas data science library, as well as the abstraction of Series and DataFrame as central data structures for data analysis, as well as tutorials on how to effectively use functions like groupby, merge, and pivot tables. Students will be able to take tabular data, clean it, alter it, and execute basic inferential statistical analyses at the conclusion of this course.

Start Date:

Doubt Clear Time:

Course Time:

Features:

Online Instructor-led learning

Practical Implementation

Integrate academic knowledge with the tech

Real-time Project

Live Class Recording

Doubt Clearing

Assignment in all the Module

Quiz in every Module

Career Counselling

Completion Certificate

What we learn:

Introduction to Pandas

Basic Data structure of Pandas

Pandas Series

Pandas DataFrame

Pandas Operation

Pandas groupby

Data Operation

Plotting in Pandas

Advance Pandas

Project

Requirements:

System with Internet Connection

Interest to learn

Dedication

Instructor:

>Introduction to the course:

>>Pandas Intro

>>Course prerequisite

>>What is Pandas?

>>Why do we use Pandas?

>>What can Pandas do?

>>Advantages of Pandas

>>Installation of Pandas

>Assignment 1:

>>Write a command to check the version of Pandas?

>Pandas Series:

>>What is Pandas Series?

>>Index

>>Labels

>>Creating own Labels

>Assignment 2:

>>Create a simple Pandas Series from a list.

>Pandas Read CSV:

>>What is a CSV file?

>>What is pandas.read_csv function?

>>What is pandas.head function?

>>What is pandas.tail function?

>Pandas read JSON:

>>What is a JSON file?

>>What is pandas.read_json function?

>Pandas DataFrame:

>>What is Pandas DataFrame?

>>How to create Pandas DataFrame?

>>How to create Pandas DataFrame from the list?

>>How to create Pandas DataFrame from the dictionary?

>>Selecting multiple columns

>>Selecting Columns with methods

>>DataFrame Attributes and methods

>>Meaningful Indexing

>>Renaming row and column names

>>Locate row

>>Creating and deleting columns

>Assignment 3:

>>Read any CSV data file and show the first five results of the file.

>Assignment 4:

>>Create pandas DataFrame from Dictionary

>Selecting Subset of DataFrame:

>>Selecting subset of data with []

>>Selecting subset of data with .loc

>>Selecting subset of data with .iloc

>Boolean Indexing:

>>What is Boolean values?

>>What is Boolean indexing?

>>What is a comparison operator?

>>Boolean selection with criteria

>>Condition expressions

>>.isin function

>>.isnull function

>Assignment 5 :

>>Read any CSV file and check whether there are null values or not in file.

>Assigning Subset of data:

>>Assigning a new column

>>Assigning a new column with a list or array

>>What is a datatype?

>>Changing the datatype with astype function

>>Assigning a subset with .iloc

>>Assigning an entire column with .loc and .iloc

>Pandas Groupby:

>>What is Pandas Groupby?

>>Why do we use the Groupby function?

>>What are different aggregation functions?

>>How to use Groupby?

>Advance Pandas:

>>Sorting nlargest, nsmallest, sort_values

>>Replacing values in DataFrame/Series

>>Renaming columns and indexes in DataFrame/Series

>>fillna function

>>dropna function

>>Descriptive Statistics

>>Combining DataFrames

>>Merge and Join function

>Plotting in Pandas:

>>What is Visualization?

>>What are the different visual segments?

>>What are the different plots that are available in Pandas?

>Assignment 6:

>>Create any dummy data and plot a graph using that data.

>Project:

>>Use a dataset and do data analysis using pandas and find insights from the data.