



## Data Processing using Dask

### **Description:**

In this course, students will learn how to scale data analysis tasks using a very powerful Python library called Dask. You will use Dask to run distributed data analysis tasks, from processing the data to visualizing it. After successfully completing this course, you will be able to put data analysis ideas into practice using a variety of approaches on datasets.

### **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 about Dask library
- # Distributed computing
- # Applications of Dask
- # Introduction to Google colab
- # Manipulation of Dask Data Frames
- # Statistics overview
- # Overview about Descriptive statistics
- # Overview of Data visualization
- # Importance of data visualization
- # Different types of Plots Using Seaborn

### **Requirements:**

- # System with Internet Connection
- # Interest to learn
- # Dedication

### **Instructor:**

### **>Course Introduction:**

- >>Dashboard overview
- >>Course overview
- >>Who is this course for?
- >>What is a Data Science?
- >>Why should you learn Data Science?
- >>History of Data Science
- >>What is distributed computing?
- >>What is Dask?
- >>Why should you learn Dask?
- >>Applications of Dask

## **>Introduction to Jupyter Notebook and Python programming:**

- >>An overview of Python programming language
- >>Understanding the Google colab structure
- >>Understanding jupyter notebook structure
- >>Saving and loading jupyter notebooks
- >>Why should you learn Python programming?
- >>Applications of Python programming
- >>Installing Dask library in colab

## **>Introduction to Dask:**

- >>Introduction to distributed computing
- >>Why do we use distributed computing?
- >>What are DataFrames?
- >>Why should we use DataFrames?
- >>Dask vs Pandas

### **>Dask fundamentals:**

- >>Reading data from text files using dask
- >>Overview of csv files
- >>Reading data from csv files
- >>Selecting columns from dask dataframe
- >>Dropping columns from dask dataframe
- >>Renaming columns in dask dataframe
- >>Selecting rows from a dataframe
- >>Counting missing values from a dataframe
- >>Dropping rows with missing data

### **>Assignment 1:**

- >>Reading and analysing a geographical dataset

### **>Analyzing dataframes:**

- >>What are descriptive statistics?
- >>Overview of descriptive statistics
- >>Calculating descriptive statistics with dask

>>Using describe method for descriptive statistics

>>What is correlation in data?

>>Calculating correlations in dask dataframes

>>What is numerical data?

>>What is categorical data?

## **>Assignment 2:**

>>Program to find descriptive statistics of a pokemon dataset

## **>Data Visualization with Dask:**

>>What is data visualization?

>>Importance of data visualization

>>Introduction to Seaborn

>>Installing Seaborn

>>Creating a scatterplot

>>Creating bar graph

>>Creating pie charts

>>Creating line plots

## **>Assignment 3:**

>>Building interactive charts and dashboard on pokemon dataset

## **>Course summary:**

>>Course Outro

>>Future scope and references