Data Science with Python Training Course Content

Section 1: Introduction to Data Science

- ➢ What is Data Science?
- ➢ Where it is used?
- ➢ Data Science recent trends
- ➢ Data Science Fundamentals
- ➢ Data Science Application using Python
- ➢ Python concepts for Data Science

Section 2: Introduction to Python

- ➢ What is Python?
- ➢ Where it is used?
- ➢ Recent trends in Python
- ➢ Python Installation
- ➢ Python basics
- ➢ Python applications
- ➢ Python IDE
- ➢ Sample Python scripts

Section 3: Understanding Python concepts

- ➢ Python Anaconda
- ➢ Python comments
- ➢ Construct in Python
- ➢ Names
- ➢ Variables
- ➢ Data Types
- ➢ Containers
- ➢ Operators
- ➢ Loops
- ➢ Statement

Section 4: OOPS Concepts for Python

- ➢ Encapsulation
- ➢ Inheritance

- ➢ Polymorphism
- ➢ Abstraction
- ➢ Modifiers
- ➢ Instances,
- ➢ Class and objects
- ➢ Working with Lambda expressions.

Section 5: NumPy and SciPy Concepts

- ➢ Mathematical computing
- ➢ Scientific computing
- ➢ What is NumPy?
- ➢ What is SciPy?
- ➢ NumPy array manipulation
- ➢ Understanding Bayes Theorem

Section 6: Working with Data Manipulation

- ➢ Introduction to Data Manipulation
- ➢ Introduction to Pandas
- ➢ Types of Joins
- ➢ Concept of Dataset
- ➢ Working with Pandas

Section 7: Deploying Matplotlib

- ➢ Visualization concepts
- ➢ Introduction to Matplotlib
- ➢ Data Visualization with Pandas
- ➢ Working with Subplots

Section 8: Understanding Machine Learning with Python

- ➢ What is Machine Learning?
- ➢ Where it is used?
- ➢ Machine Learning latest trends
- ➢ Machine Learning usecases
- ➢ Machine Learning algorithms
- ➢ Supervised Learning
- ➢ Unsupervised Learning

Section 9: Python and Spark

- ➢ Installation of pyspark
- ➢ Introduction to pyspark

- Fundamentals of pyspark
- Concepts of Mapreduce
- Working with pyspark