# iNeuron

Python
Indepth
Live Sessions.

#### **Course Introduction**

Introduction of Data science and its application in Day to Day life Course overview and Dashboard description

#### Python Core

Introduction of python and comparison with other programming language

Installation of Anaconda Distribution and other python IDE Python Objects, Number & Booleans, Strings, Container objects, Mutability of objects Operators - Arithmetic, Bitwise, comparison and Assignment

operators, Operators Precedence and associativity.

Conditions(If else,if-elif-else)

Loops(While,for)

Break and Continue statements

Range functions

### String Objects and collections

String object basics

String methods

Splitting and Joining Strings

String format functions

list object basics

list methods

List as stack and Queues

List comprehensions

#### Tuples, Set, Dictionaries & Functions

Tuples, Sets, Dictionary Object basics, Dictionary Object methods, Dictionary View Objects.

Functions basics, Parameter passing, Iterators

Generator functions

Lambda functions

Map, Reduce, filter functions

#### OOPS concepts & Working with Files

OOPS basic concepts

Creating classes and Objects

Inheritance, Multiple Inheritance

Working with files

Reading and writing files

Buffered read and write

Other File methods

## Modules, Exception Handling & Database Programming

Using Standard Module

Creating new modules

Exceptions Handling with Try-except

Creating, inserting and retrieving Table

Updating and deleting the data.

#### Flash and Api's

Flask introduction
Flask Application
Open linkFlask
App RoutingFlask
URL BuildingFlask
HTTP MethodsFlask
TemplatesFlask

#### Visualisation

Matplotlib
Seaborn
Plotly
Cufflinks.

#### Python pandas

Python Pandas - Series

Python Pandas - DataFrame

Python Pandas - Panel

Python Pandas - Basic Functionality

**Function Application** 

Python Pandas - Reindexing

Python Pandas - Iteration

Python Pandas - Sorting

Working with Text Data

Options & Customization

Indexing & Selecting Data

Statistical Functions

Python Pandas - Window Functions

Python Pandas - Date Functionality

Python Pandas - Timedelta

Python Pandas - Categorical Data

Python Pandas - Visualization

Python Pandas - IO Tools

### Python Numpy

NumPy - Ndarray Object

NumPy - Data Types

NumPy - ArrayAttributes

NumPy - Array Creation Routines

NumPy - Array from Existing Data

**Array From Numerical Ranges** 

NumPy - Indexing & Slicing

NumPy - Advanced Indexing

NumPy - Broadcasting

NumPy - Iterating Over Array

NumPy - Array Manipulation

NumPy - Binary Operators

NumPy - String Functions

NumPy - Mathematical Functions

NumPy - Arithmetic Operations

NumPy - Statistical Functions

Sort, Search & Counting Functions

NumPy - Byte Swapping

NumPy - Copies & Views

NumPy - Matrix Library

NumPy - Linear Algebra

#### **Exploratory Data Analysis**

Feature Engineering and Selection

Building Tuning and Deploying Models

Analyzing Bike Sharing Trends

Analyzing Movie Reviews Sentiment

Customer Segmentation and Effective Cross Selling

Analyzing Wine Types and Quality

Analyzing Music Trends and Recommendations

Forecasting Stock and Commodity Prices

#### Python project

Web crawlers for image data sentiment analysis and productreview sentiment analysis

Integration with web portal

Integration with rest api, web portal and

Mongo DB on Azure Deployment on web

portal on Azure

Text mining

Social media data churn



