

TRAINING PROGRAM ON

# FULL STACK BUSINESS ANALYTICS WITH PYTHON



## Syllabus PDF



## | Data Analysis

01. What is Data Analysis?
02. The Role of Data in Decision-Making.
03. Types of Data Analysis (Descriptive, Predictive and Prescriptive)
04. Data Driven Decision Making in Business
05. Understanding Data-Driven Approach
06. The importance of Data in Strategic Business Decisions
07. Case Studies of Successful Data-Driven Businesses



## | Project

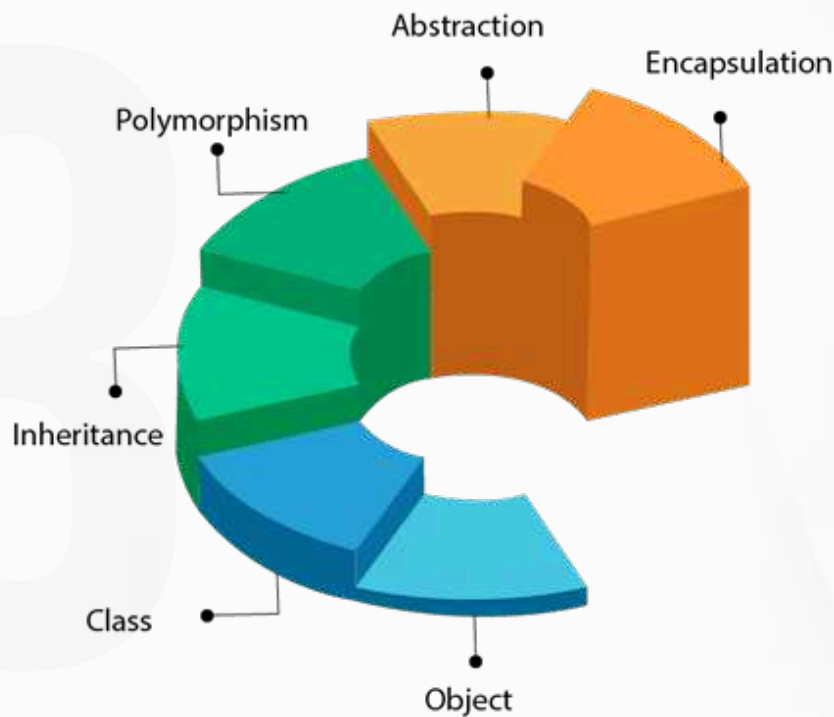


Customer Churn Prediction – Analyze customer data to identify factors contributing to churn and build a predictive model to retain customers.



## Python

01. Introduction to Python and Installation of software
02. Python Basics – Syntax, Variables and Operators
03. String Operations. 
  - List
  - Tuple
04. Data Structure 
  - Dictionary
  - Sets
05. Conditions and Control Flow
06. Functions in Python
07. Lambda, Map, Filter and Reduce Function



## Python

08.

List and Dictionary Comprehension

09.

OOPs in Python

Class

Objects

Inheritance

Polymorphism

10.

Coding Exercise and Practice Questions

11.

Build an End to End Quiz Application with Python

12.

Required Statistics for Data Analysis

## Project



Employee Payroll System –Develop a Python program to calculate salaries, taxes, and deductions.



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## Library

01. Introduction to Numpy
02. Data Manipulation and Analysis with Pandas
03. Data Visualization with Matplotlib, Seaborn and Plotly
04. Web Scraping with Python
  - > Scraping e-commerce data using Beautiful
05. Soup and twitter data using APIs



## Library

### 06. Data Cleaning Processes

- Fixing rows and columns
- Impute/Remove Missing Values
- Fixing Invalid Values
- Feature Scaling

### 07. Exploratory Data Analysis

- Univariate
- Bi-variate
- Multi-variate Analysis
  - (Python use case to Analyse Medical Insurance Charge for different patients)

## Project

Stock Price Prediction Using Pandas & Numpy – Use historical stock data to forecast future stock trends.