

## **\*\*Course Title: Python Data Analytics for Complete Beginners\*\***

### **\*\*Module 1: Introduction to Python and Data Analysis\*\***

- Overview of Python and its applications in data analytics
- Installing Python and essential libraries (NumPy, Pandas, Matplotlib)
- Introduction to Jupyter Notebook for interactive coding
- Basic Python syntax and data types
- Handling variables and operations
- Reading and writing data files (CSV, Excel, etc.)

### **\*\*Module 2: Data Manipulation with Pandas\*\***

- Introduction to Pandas library for data manipulation
- Creating, loading, and inspecting dataframes
- Selecting and filtering data
- Data cleaning and handling missing values
- Data transformation and feature engineering

### **\*\*Module 3: Exploratory Data Analysis (EDA)\*\***

- Understanding the importance of EDA in data analytics
- Descriptive statistics and summary metrics
- Data visualization with Matplotlib and Seaborn
- Univariate and bivariate analysis
- Identifying patterns and trends in data

### **\*\*Module 4: Data Wrangling and Preprocessing\*\***

- Data normalization and scaling
- Handling categorical data (encoding, dummy variables)
- Dealing with outliers and data skewness
- Merging and joining dataframes

### **\*\*Module 5: Data Analytics Project\*\***

- Applying learned concepts to real-world datasets
- Formulating a data analytics project from start to finish
- Presenting findings and insights from the project

## **\*\*Module 6: Data Analytics Ethics and Best Practices\*\***

- Understanding data ethics and privacy concerns
- Best practices in data analytics and reproducibility
- Strategies for effective data communication

This curriculum covers the fundamental concepts of Python and data analytics, providing complete beginners with the necessary knowledge and skills to start their journey in the field of data analytics using Python. The hands-on project and practical examples throughout the course will help reinforce the learning experience and build confidence in handling real-world data analysis tasks.

# **\*\*Course Title: Website and Web Development for Complete Beginners\*\***

## **\*\*Module 1: Introduction to Web Development\*\***

- Understanding the basics of web development
- Exploring the roles of HTML, CSS, and JavaScript
- Setting up a development environment (text editor, browser)

## **\*\*Module 2: Introduction to HTML\*\***

- Understanding the structure of HTML documents
- Working with HTML tags and elements
- Creating headings, paragraphs, lists, and links

## **\*\*Module 3: HTML Page Structure\*\***

- Building the layout with HTML semantic elements
- Creating headers, footers, and navigation bars
- Organizing content with div and span elements

## **\*\*Module 4: Introduction to CSS\*\***

- Understanding the role of CSS in styling web pages
- CSS syntax and selectors
- Applying styles to text, colors, and backgrounds

## **\*\*Module 5: CSS Layout and Box Model\*\***

- Working with the box model (margin, padding, border)
- Building responsive layouts with Flexbox or Grid
- Creating multi-column designs with CSS

## **\*\*Module 6: Introduction to JavaScript\*\***

- Understanding the role of JavaScript in web development

- JavaScript syntax and basic programming concepts
- Using variables, data types, and operators

## **\*\*Module 7: JavaScript Functions and DOM Manipulation\*\***

- Creating and using functions in JavaScript
- Accessing and manipulating the Document Object Model (DOM)
- Handling events and user interactions

## **\*\*Module 8: Web Forms and Validation\*\***

- Building web forms with HTML
- Implementing form validation with JavaScript
- Handling form submissions

## **\*\*Module 9: Introduction to Responsive Web Design\*\***

- Understanding the importance of responsive design
- Media queries for adapting to different devices
- Creating mobile-friendly and fluid layouts

## **\*\*Module 10: Introduction to Version Control (Git)\*\***

- Understanding version control and its importance
- Setting up a Git repository
- Basic Git commands for collaboration and code management

## **\*\*Module 11: Introduction to Front-End Frameworks\*\***

- Overview of popular front-end frameworks (e.g., Bootstrap)
- Utilizing pre-built components for rapid development

## **\*\*Module 12: Web Hosting and Deployment\*\***

- Choosing a web hosting provider
- Deploying a website to a web server
- Domain registration and website launch

## **\*\*Module 13: Web Performance and Optimization\*\***

- Strategies for improving website performance
- Minifying and compressing assets (HTML, CSS, JavaScript)
- Caching and reducing load times

## **\*\*Module 14: Introduction to Back-End Development\*\***

- Overview of back-end technologies (e.g., Node.js, PHP, Python)
- Understanding the client-server architecture

## **\*\*Module 15: Course Project - Building a Complete Website\*\***

- Applying learned concepts to build a fully functional website
- Incorporating HTML, CSS, and JavaScript to create a dynamic user experience

Throughout the course, students will actively engage in hands-on exercises and projects to reinforce their understanding of web development concepts. By the end of the course, complete beginners will have the skills to create and deploy their own websites, equipped with modern design and interactive elements.