**Course Description**

Python Programming course by RIMDEV, provides best and most relative contents required for making the participants comfortable with Python Programming Language. The main motive of the course will be to help students get started with python programming language and motivate them to gain knowledge on deeper concepts of the language.

**Key Features**

**Organized Content**

The contents of the course are properly organized and arranged for better understanding of the concepts and help them grasp new things faster and enhance their knowledge.

**Best Illustration**

The concepts, codes and tools are well illustrated by our experts through slides and practical performance which will help the concepts to be cleared faster and solve all the doubts.

**Documented Codes**

The codes demonstrated to the students will be fully documented, prepared by our team of experts.

**Certificate**

Students will be provided with Course Completion Certificate along with all the Course Material.

**Internship Opportunities**

After successful completion of the course, students will also receive an opportunity for gaining industry knowledge through internship with our development team.

**Course Syllabus**

The contents cover all the fundamental concepts to get the participants motivated and comfortable with programming in Python.

1. Python Installation and Environment
   1. Installing Python on Windows
   2. Installing Python on Linux
   3. Python Shell & IDLE
2. Getting Started
   1. Python Basics
   2. Algorithms and Programs
   3. Using the Text Editor
3. Variables and Identifiers
   1. Name Your Identifiers
   2. Descriptive Identifiers and Comments
   3. Variable Types d. Get Input from User
4. Statements, Assignments, and Expressions
5. Operators
   1. Arithmetic Operators and Precedence
   2. Relational Operators
   3. Logical Operators
   4. Membership Operators
6. Conditions
   1. Condition if else
   2. Condition if elif else
7. Loops
   1. While Loop
   2. For Loop
   3. Continue and Break
   4. Nested Loops
8. Methods and Functions
   1. Functions & Functions Analogy
   2. Methods
   3. Lambda Expressions
   4. Modules
9. Lists
   1. List Basics
   2. List Manipulation
   3. List slicing
10. Strings
    1. Strings Basics
    2. Character Encoding
    3. String Methods
11. Dictionaries
    1. Dictionaries Basics
    2. Dictionary Methods
12. File I/O
    1. File IO
    2. File Access Modes
    3. File Position
13. Tuples
    1. Tuples
    2. Tuples in Function Returns
14. Formatting
    1. Formatting
    2. Formatting Positional
    3. Formatting Width Precision Type
    4. Formatting Sign
15. More on Functions
    1. Namespaces
    2. Scope
    3. Recursive Functions
16. Exception and Error Handling
    1. Error Handling
    2. Exception Handling
    3. Finally Block
17. Regular Expressions in Python
    1. Regex Library
    2. Search Find All
    3. Find and Replace
    4. The Dot Meta
    5. Carret Dollar Meta
    6. Star Meta
    7. Group
18. Object Oriented Programming
    1. Classes, objects and attributes
    2. Initializes
    3. Methods and Inheritance
    4. Special Methods
19. Built-in Python Functions
    1. Map-Reduce
    2. Filter
    3. Zip
    4. Enumerate
    5. All and Any
    6. Complex
20. Python Decorators
    1. Introducing Decorators
    2. Working with Decorators
21. Python Generators
    1. Iteration v/s Generation
    2. Creating Generators
22. Python Graphical User Interface with Tkinter
    1. Hello World with GUI
    2. Frames
    3. Grid Layout
    4. Auto Adjusting Widgets
    5. Handling User Input
    6. Drop Downs
    7. Classes
    8. Toolbar
    9. Status Bar
    10. Massage Box
    11. Drawings
    12. Building Fully functional GUI App
23. Data Analysis with Python
    1. Introduction to Data Analysis
    2. Data Analysis tools installation
    3. Introducing Pandas
    4. Data Frames
    5. Manipulating Columns
    6. Re-Indexing Data Frames
    7. Arithmetic Operations on Data-Frames
    8. Sorting Series and Data Frames
    9. Loading and Analysing File Data
    10. Advanced Indexing and Slicing
    11. Broadcasting
    12. Plotting Data with Matplotlib
24. Web Application Development with Python-Django
    1. Installing Django
    2. Getting Started with Django
    3. Creating the First App
    4. App description in Django
    5. Creating and Working with Views
    6. Migrations in Django
    7. Working with Databases
    8. Creating database tables with
    9. Inserting data in database tables
    10. Filtering
    11. Django Admin Panel
    12. Template rendering with Django
    13. Replacing Hardcoded URL’s
    14. Django Namespaces
    15. Working with Static Files
    16. Creating a Navigation Bar
    17. Base Templates
    18. Generic Views
    19. Working with Forms
25. Web Application Development with Python-Flask
    1. Setting up Flask
    2. Hello World with Flask
    3. Routing
    4. Dynamic URL’s
    5. Sending data to Server
    6. Templates
    7. Working with Forms
    8. Cookies
26. Web Crawling with Python
    1. Introduction to Web Crawling
    2. Setting up the tools
    3. Find the data on web
    4. Adding and Deleting Links
    5. Parsing HTML
    6. Introduction to Spider
    7. Creating a Spider
    8. Crawling, Gathering and Queuing Links

**Target Audience**

Python Programming course is specifically designed for programmers who want to get started with Python Programming Language.

**Who can Attend?**

Attendee can be any person with basic knowledge of computers and programming.

**Duration**

50 Hours (Weekend Batches).

**Certificate**

Attendees will receive a course completion certificate at the end of course.

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