

# PYTHON ANALYTICS

Master Python skills for  
real-world analytics.



## Diverse Tech Topics

- Python Programming
- Data Handling with Pandas
- Exploratory Data Analysis
- Data Visualization Tools
- Time-Series Analysis
- Numerical Computing with NumPy
- Real-World Analytics Projects

**ENROLL NOW**

**+91 974 974 9596**  
**[www.flairtechnologies.in](http://www.flairtechnologies.in)**



## **Comprehensive Curriculum**

Covers Python, Pandas, NumPy, EDA, visualization, and reporting for real-world data analysis.

01



## **Learning Notes for Each Session**

Session-wise learning notes provide structured summaries of key concepts, tools, and techniques for efficient review and retention.

02



## **Advanced Concepts & Tools with Collaborative Environment**

Gain expertise in advanced concepts via interactive, collaborative, and practical learning sessions

03



## **Hands-On Projects with Expert Instructors**

Real-time projects with in depth training on Python, Pandas, NumPy, visualization, and reporting using datasets.

04



## **Mock Interviews & Resume Preparation**

We take mock interviews and provide you feedback which helps you how to prepare for real Interviews also we help you in resume preparation based on your skills and experience.

05



## **1:1 Meeting with our experts**

You can have 1:1 meeting to discuss your career path and guidance on how to prepare your resume and job placements.

06

## PYTHON SETUP & GETTING STARTED

- Installing Jupyter / VS Code
- Introduction to Python in data workflows
- Working in Jupyter Notebooks: Cells, Markdown, Shortcuts
- Python file types: .ipynb, .py
- Best practices for writing readable, clean analysis code

## PYTHON ESSENTIALS FOR ANALYSTS

- Variables, Data Types (int, float, str, bool, list, tuple, dict, set)
- Type conversion, type checking
- Control Flow: if, elif, else, nested conditions
- Loops: for, while, break, continue, range()
- Functions, Lambda expressions
- Basic Exception Handling: try, except, finally

## WORKING WITH DATA FILES

- Reading/writing CSV, Excel, and JSON files
- File paths and directories using os and pathlib
- Handling encoding issues and bad headers
- Reading large files in chunks
- File clean-up automation

## CORE PANDAS FOR DATA ANALYSIS

### DataFrame Basics

- Creating DataFrames (from CSV, dicts, lists)
- Indexing & slicing: .loc[], .iloc[], []
- Adding/removing columns/rows
- Renaming columns, setting index
- Basic data inspection: .head(), .info(), .describe()

### Data Cleaning

- Handling missing data: .isnull(), .fillna(), .dropna()
- Removing duplicates
- Replacing and mapping values
- String operations: .str.lower(), .str.replace(), .str.extract()

### Data Transformation

- Creating new calculated columns
- Applying functions row-wise (.apply())
- Binning data using cut() and qcut()
- Using map(), replace(), and np.where() for classification logic
- Changing column data types with .astype()

## DATA AGGREGATION & GROUPING

- Using .groupby() for summaries
- Multiple aggregations using .agg()
- Counting unique values
- Row-wise calculations
- Calculating percentages within groups
- Creating pivot tables with .pivot\_table()
- Crosstab analysis

## MERGING & COMBINING DATA

- pd.merge() - inner, left, right, outer joins
- pd.concat() - appending rows/columns
- Joining on index vs column
- Handling column conflicts during merge
- Use case: Merging sales with region/category/master data



### DATE AND TIME HANDLING

- Parsing date columns with `pd.to_datetime()`
- Extracting year, month, day, weekday
- Filtering by date ranges
- Creating date features (e.g., quarter, month name)
- Time-based grouping (monthly, weekly, daily)

### EXPLORATORY DATA ANALYSIS (EDA)

- Identifying outliers using IQR
- Frequency counts, value distributions
- Feature correlation analysis (`.corr()`)
- Skewness, kurtosis, and data shape
- Detecting patterns before visualization

### VISUALIZATION WITH MATPLOTLIB & SEABORN

#### Matplotlib Basics

- Bar charts, line charts, pie charts
- Customizing axes, titles, legends
- Saving plots as images

#### Seaborn Essentials

- Countplot, barplot, boxplot, histplot, heatmap
- Distribution & scatter plots
- Grouped plots with hue and col
- Plot styling with themes and palettes

### NUMPY FOR NUMERIC OPERATIONS

- Creating arrays, array indexing
- Element-wise operations
- Aggregation functions (sum, mean, std)
- Boolean indexing
- Reshaping and flattening
- Use in performance optimization with Pandas

### REAL-WORLD REPORTING TASKS

- Exporting cleaned data to Excel
- Writing multiple sheets to Excel using `ExcelWriter`
- Adding dynamic filenames with timestamps
- Generating summary tables
- Automating a simple monthly reporting task



## FLAIR TECHNOLOGIES - DATA ANALYTICS

### PROGRAM DURATION & FORMATE

45 SESSIONS | ONE MONTH | MON TO SAT (DAILY 1 HOURS)

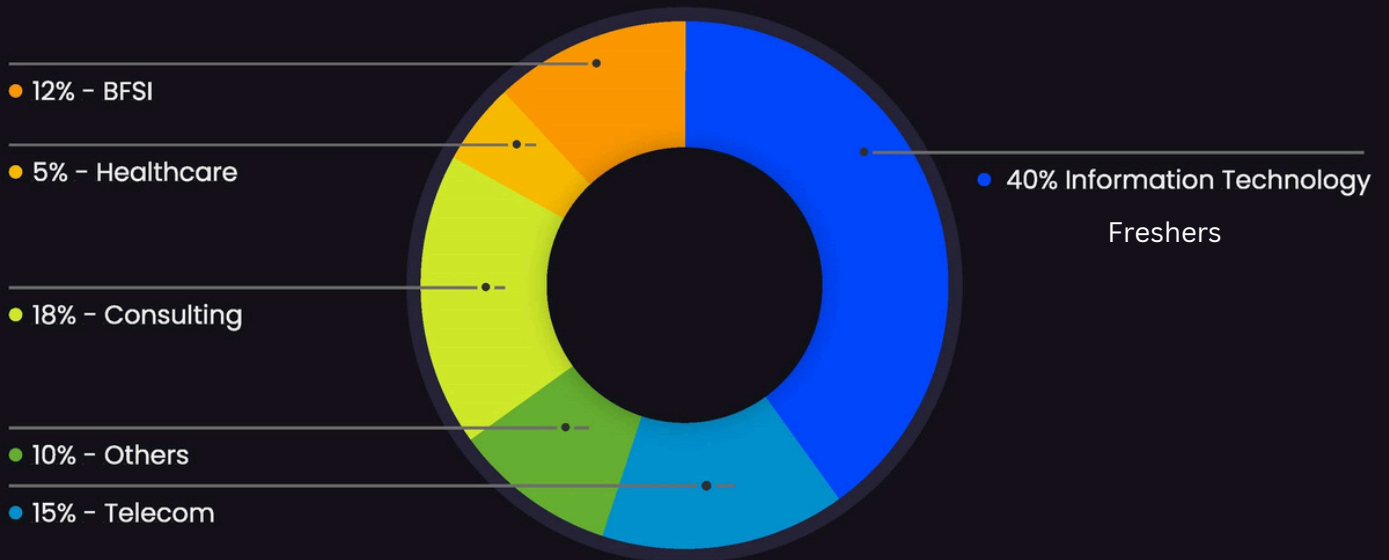
### PROGRAM FEE

INR: 15,000 /-

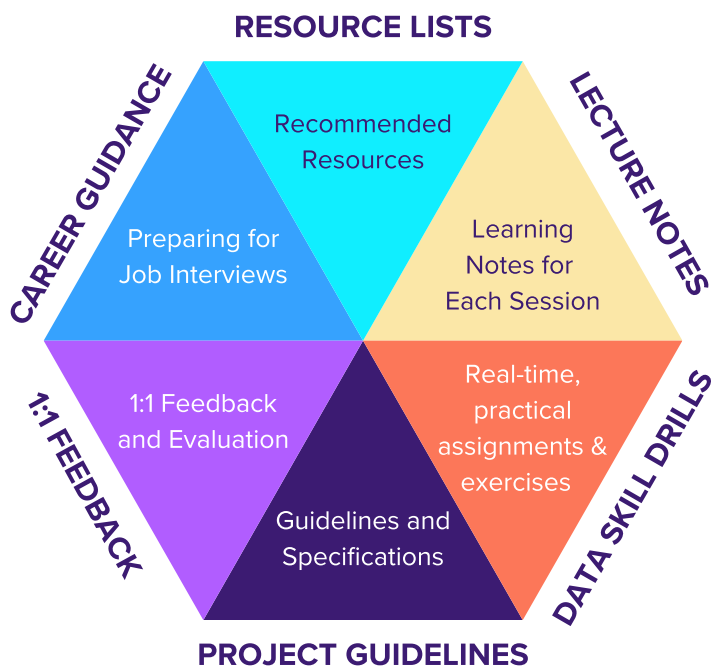
### ELIGIBILITY

IT Professionals

## Industries Our Learners Come From



## WHAT YOU ACHIEVE



### TARGET GOALS

- 1 Resource Lists
- 2 Lecture Notes
- 3 Hands-on Exercises
- 4 Project Guidelines
- 5 1:1 Feedback
- 6 Career Guidance

We are pioneers in providing trainings by certified Instructors who are highly qualified with decades of experience in the subject matter. Flair Technologies was expertise in providing quality Industry Oriented Training with Interview Preparation and Placement Assistance.

### GOALS ACHIVED

- 1 Expertise in Python Analytics
- 2 Ready for Interview
- 3 Placement in MNC

# FLAIR TECHNOLOGIES

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FLAIR TECHNOLOGIES was founded in 2014 With the mission to provide high quality software Trainings. Despite facing challenges due to full-time commitments, our enthusiasm for teaching never waned.

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**Drop Us A Line**

**+91 974 974 9596**  
**Call Us Now**

**Our Location**  
**Bengaluru, India**

