



DATA ANALYTICS

ABOUT TRAINING



Learning Format

Online / Offline



Time Duration

30 Hours



Career Services

By IT Wave Solution

The Program in Data Analytics covers many important subjects, provides you with live industry-based projects, and offers valuable practical experience. This in-depth Data Analytics certification course will help you master all the key principles of Data Analytics and develop all the essential skills required to become a professional.

Why Choose Our Data Analytics Training?

- 1. Expert Instructors:** Our training programs are led by seasoned professionals with extensive experience in finance and Data Analytics. They bring real-world insights and practical knowledge to the classroom, ensuring you learn from the best.
- 2. Comprehensive Curriculum:** Our Data Analytics training covers all facets of financial accounting and controlling, ensuring you gain proficiency in areas such as accounts receivable, accounts payable, general ledger accounting, asset accounting, cost element accounting, and much more.
- 3. Certification:** Upon successful completion of our Data Analytics training, you'll receive a recognized certification that validates your expertise. This certification can significantly enhance your resume and career prospects.
- 4. Career Support:** We don't just stop at training; we're invested in your success. Our career support services include job placement assistance, resume building, and interview preparation to help you land your dream job.

Program FEATURES



Key Highlights

**Instructor - Led
Training**

Self- paced Videos

Project & Exercises

Job Assistance

Flexible Schedule

**1 Year Company
support**

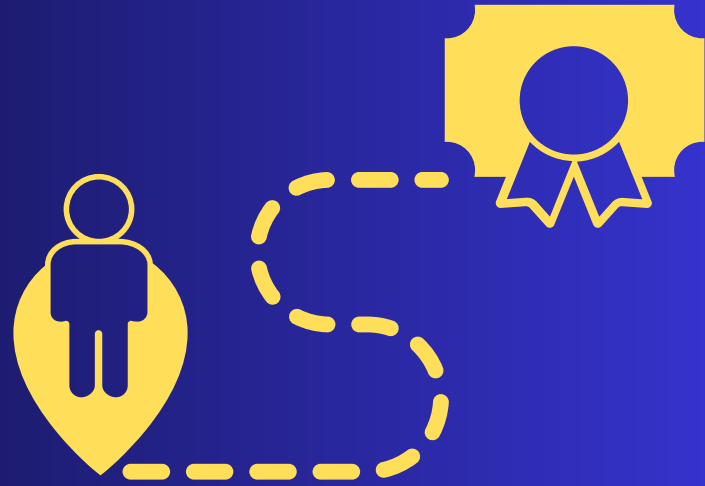
Mentor Support

**Guaranteed
Interviews**

**1 - 1 with industry
mentors**

Training Certification

Learning Path



Who Should Enroll in **this Program?**

Our Data Analytics training is suitable for a wide range of individuals, including:

- Aspiring finance professionals looking to kickstart their career.
- Finance and accounting professionals seeking to upgrade their skills.
- Business analysts and IT professionals involved in finance system implementations.



Data Analytics Training Curriculum

Module 1: Python Statistics for Data Science

✓ Introduction To Python:

- Installation and Working with Python
- Understanding Python variables
- Python basic Operators
- Understanding the Python blocks.

✓ Introduction To Variables:

- Variables, expression condition and function
- Global and Local Variables in Python
- Packing and Unpacking Arguments
- Type Casting in Python
- Byte objects vs. string in Python
- Variable Scope

✓ Python Data Type:

- Declaring using numeric data types
- Using string data type and string operations
- Understanding Non-numeric data types
- Understanding the concept of Casting and Boolean.
- Strings
- List
- Tuples
- Dictionary
- Sets

✓ Introduction Keywords and Identifiers and Operators

- Python Keywords and Identifiers
- Python Comments, Multiline Comments
- Python Indentation
- Understating the concepts of Operators

Data Structure

✓ List

- What is a list
- List Creation
- List Length
- List Append
- List Insert
- List Remove
- List Append & Extend using “+” and Keyword
- List Delete
- List related Keywords in Python
- List Revers
- List Sorting
- List having Multiple Reference
- String Split to create a List
- List Indexing
- List Slicing
- List count and Looping
- List Comprehension and Nested Comprehension

✓ Dictionary

- Dict Creation
- Dict Access (Accessing Dict Values)
- Dict Get Method
- Dict Add or Modify Elements
- Dict Copy
- Dict FromKeys.
- Dict Items
- Dict Keys (Updating, Removing and Iterating)
- Dict Values
- Dict Comprehension
- Default Dictionaries
- Ordered Dictionaries
- Looping Dictionaries
- Dict useful methods(Pop, Pop Item, Str, Update etc.)

Sets, Tuples and Looping Programming

✓ Sets

- What is Set
- Set Creation
- Add element to a Set
- Remove elements from a Set
- Python Set Operations
- Frozen Sets

✓ Tuple

- What is Tuple
- Tuple Creation
- Accessing Elements in Tuple
- Changing a Tuple
- Tuple Deletion

- Tuple Count
- Tuple Index
- Tuple Membership
- Tuple Built in Function (Length, Sort)

✓ **Control Flow**

- Loops
- Loops and Control Statements (Continue, Break and Pass).
- Looping techniques in Python
- How to use the Range function in Loop?
- Programs for printing Patterns in Python

How to use if and else with Loop

- Use of Switch Function in Loop
- Elegant way of Python Iteration
- Generator in Python
- How to use nested IF and Else in Python
- How to use nested Loop in Python
- Use If and Else in for and While Loop
- Examples of Looping with Break and Continue Statements
- How to use IN or NOT keyword in Python Loop.

Exception and File Handling, Module, Function and Packages

✓ **Python Exception Handling**

- Python Errors and Built-in-Exceptions
- Exception handling Try, Except and Finally
- Catching Exceptions in Python
- Catching Specific Exception in Python
- Raising Exception
- Try and Finally

✓ Python File Handling

- Opening a File
- Python File Modes
- Closing File
- Writing to a File
- Reading from a File
- Renaming and Deleting Files in Python
- Python Directory and File Management
- List Directories and Files
- Making New Directory
- Changing Directory

✓ Python Function, Modules and Packages

- Python Syntax
- Function Call
- Return Statement
- Write an Empty Function in Python –pass statement
- Lambda/ Anonymous Function
- *args and **kwargs
- Help function in Python
- Scope and Life Time of Variable in Python Function
- Nested Loop in Python Function
- Recursive Function and Its Advantage and Disadvantage
- Organizing python codes using functions
- Organizing python projects into modules
- Importing own module as well as external modules
- Understanding Packages
- Programming using functions, modules & external packages

Map, Filter and Reduce function with Lambda Function

- More example of Python Function

✓ Python Object Oriented Programming—Oops

- Concept of Class, Object and Instances
- Constructor, Class attributes and Destructors
- Real time use of class in live projects
- Inheritance, Overlapping and Overloading operators
- Adding and retrieving dynamic attributes of classes
- Programming using Oops support

✓ Python Database Interaction

- SQL Database connection using
- Creating and searching tables
- Reading and Storing config information on database
- Programming using database connections

✓ Reading an excel

- Reading an excel file using Python
- Writing to an excel sheet using Python
- Python Reading an excel file
- Python Writing an excel file
- Adjusting Rows and Column using Python
- Arithmetic Operation in Excel file
- Plotting Pie Charts
- Plotting Area Charts
- Plotting Bar or Column Charts using Python
- Plotting Doughnut Charts using Python
- Consolidation of Excel File using Python
- Split of Excel File Using Python
- Play with Workbook, Sheets and Cells in Excel using Python
- Creating and Removing Sheets
- Formatting the Excel File Data
- More example of Python Function

✓ Working with PDF and MS Word using Python

- Extracting Text from PDFs
- Creating PDFs
- Copy Pages
- Split PDF
- Combining pages from many PDFs
- Rotating PDF's Pages

✓ Complete Understanding of OS Module of Python

- Check Dirs. (exist or not)
- How to split path and extension?
- How to get user profile detail?

Get the path of Desktop, Documents, Downloads etc

Handle the File System Organization using OS

- How to get any files and folder's details using OS?

Data Analysis & Visualization

✓ Pandas

- Read data from Excel File using Pandas More Plotting, Date Time Indexing and writing to files
- How to get record specific records Using Pandas Adding & Resetting Columns, Mapping with function
- Using the Excel File class to read multiple sheets More Mapping, Filling Nonvalue's
- Exploring the Data Plotting, Correlations, and Histograms
- Getting statistical information about the data Analysis Concepts, Handle the None Values
- Reading files with no header and skipping records Cumulative Sums and Value Counts, Ranking etc
- Reading a subset of columns Data Maintenance, Adding/Removing Cols and Rows
- Applying formulas on the columns Basic Grouping, Concepts of Aggregate Function
- Complete Understanding of Pivot Table Data Slicing using iLoc and Loc property (Setting Indices)
- Understanding the Properties of Pivot Table in Pandas Advanced Reading CSVs/HTML, Binning, Categorical Data
- Exporting the results to Excel Joins:

- Python | Pandas Data Frame Inner Join
- Understanding the properties of Data Frame Left Join (Left Outer Join)
- Indexing and Selecting Data with Pandas Right Join (Right Outer Join)
- Pandas | Merging, Joining and Concatenating Full Join (Full Outer Join)
- Pandas | Find Missing Data and Fill and Drop NA Appending Data Frame and Data
- Pandas | How to Group Data How to apply Lambda / Function on Data Frame
- Other Very Useful concepts of Pandas in Python Data Time Property in Pandas (More and More)

✓ **NumPy**

- Introduction to NumPy: Numerical Python
- Importing NumPy and Its Properties
- NumPy Arrays
- Creating an Array from a CSV
- Operations on Array from a CSV
- Operations with NumPy Arrays
- Two-Dimensional Array
- Selecting Elements from 1-D Array
- Selecting Elements from 2-D Array
- Logical Operation with Arrays
- Indexing NumPy elements using conditionals
- NumPy's Mean and Axis
- NumPy's Mode, Median and Sum Function
- NumPy's Sort Function and More

✓ **Matplotlib**

- Bar Chart using Python Matplotlib
- Column Chart using Python Matplotlib
- Pie Chart using Python Matplotlib
- Area Chart using Python Matplotlib
- Scatter Plot Chart using Python Matplotlib
- Play with Charts Properties Using Matplotlib
- Export the Chart as Image
- Understanding plt. subplots () notation

- Legend Alignment of Chart using Matplotlib
- Create Charts as Image
- Other Useful Properties of Charts
- Complete Understanding of Histograms
- Plotting Different Charts, Labels, and Labels Alignment etc

✓ Introduction to Seaborn

- Introduction to Seaborn
- Making a scatter plot with lists
- Making a count plot with a list
- Using Pandas with seaborn
- Tidy vs Untidy data
- Making a count plot with a Data frame
- Adding a third variable with hue
- Hue and scatter plots
- Hue and count plots

✓ Visualizing Two Quantitative Variables

- Introduction to relational plots and subplots
- Creating subplots with col and row
- Customizing scatter plots
- Changing the size of scatter plot points
- Changing the style of scatter plot points
- Introduction to line plots
- Interpreting line plots
- Visualizing standard deviation with line plots
- Plotting subgroups in line plots

✓ Visualizing a Categorical and a Quantitative Variable

- Current plots and bar plots
- Count plots
- Bar plot with percentages
- Customizing bar plots
- Box plots
- Create and interpret a box plot

- Omitting outliers
- Adjusting the whiskers
- Point plots

Customizing points plots

Point plot with subgroups

Customizing Seaborn Plots

- Changing plot style and colour
- Changing style and palette
- Changing the scale
- Using a custom palette
- Adding titles and labels: Part 1
- Face Grids vs. Axes Subplots
- Adding a title to a face Grid object
- Adding title and labels: Part 2
- Adding a title and axis labels
- Rotating x-ticks labels
- Putting it all together
- Box plot with subgroups
- Bar plot with subgroups and subplots

Module 2 : Data Analytics Overview

Data Analytics Overview

- Dealing with Different Types of Data
- Data Visualization for Decision making
- Data Science, Data Analytics, and Machine Learning
- Data Science Methodology
- Data Analytics in Different Sectors
- Analytics Framework and Latest trends

Module 3 :MS SQL For Data Analytics

Introduction

- Overview of Oracle Database 11g and related products
- Overview of relational database management concepts and terminologies
- Introduction to SQ Land its development environments

- The HR schema and the tables used in this course
- Oracle Database documentation and additional resources

✓ Retrieve Data using the SQL SELECT Statement

- List the capabilities of SQL SELECT statements
- Generate a report of data from the output of a basic SELECT statement
- Use arithmetic expressions and NULL values in the SELECT statement
- Invoke Column aliases
- Concatenation operator, literal character strings, alternative quote operator, and the DISTINCT keyword
- Display the table structure using the DESCRIBE command

✓ Usage of Single-Row Functions to Customize Output

- List the differences between single row and multiple row functions
- Manipulate strings using character functions
- Manipulate numbers with the ROUND, TRUNC, and MOD functions
- Perform arithmetic with date data
- Manipulate dates with the DATE functions

✓ Conversion Functions and Conditional Expressions

- Describe implicit and explicit data type conversion
- Describe the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions
- Nesting multiple functions
- Apply the NVL, NULLIF, and COALESCE functions to data
- Usage of conditional IF THEN ELSE logic in a SELECT statement

✓ Aggregated Data Using the Group Functions

- Usage of the aggregation functions in SELECT statements to produce meaningful reports
- Describe the AVG, SUM, MIN, and MAX function
- How to handle Null Values in a group function?
- Divide the data in groups by using the GROUP BY clause
- Exclude groups of data by using the HAVING clause

✓ Display Data from Multiple Tables

- Write SELECT statements to access data from more than one table
- Join Tables Using SQL:1999 Syntax
- View data that does not meet a join condition by using outer joins

- Join a table to itself by using a self join
- Create Cross Joins

✓ Usage of Sub-queries to Solve Queries

- Use a Sub-query to Solve a Problem
- Single-Row Sub-queries
- Group Functions in a Sub-query
- Multiple-Row Sub-queries
- Use the ANY and ALL Operator in Multiple-Row Sub-queries
- Use the EXISTS Operator

✓ SET Operators

- Describe the SET operators
- Use a SET operator to combine multiple queries into a single query
- Describe the UNION, UNION ALL, INTERSECT, and MINUS Operators
- Use the ORDER BY Clause in Set Operations

✓ Data Manipulation

- Add New Rows to a Table
- Change the Data in a Table
- Use the DELETE and TRUNCATE Statements
- How to save and discard changes with the COMMIT and ROLLBACK statements
- Implement Read Consistency
- Describe the FOR UPDATE Clause

Module 4 : Advance Excel for Analytics



Training Certifications

Earn Your Certificate

Your certificate and skills are vital to the extent of jump-starting your career and giving you a chance to compete in a global space.



IT Wave Solution! Reviews



"The most rewarding part of my experience has been achieving a prestigious certification in the subject that I love. Moreover, the training offered out by the specialists are of world-class and prepares out the students for corporate world. For me IT Wave Solution means a lot."

*"By The
Students
For The
Students"*

Your Success Is Our Story



Prashant Singh

“ I am fully satisfied with the excellent training services received by the expert staff at IT Wave Solution. I want to thank IT Wave solution for providing me with the most innovative and affordable training services for learning all the software testing procedures and guidelines. ”



Swati Kumari

“The Best Service provider I must say they have very knowledgeable staff and good command on Hardware/software, value to money and value to time.. Must Recommend this place to everyone. ”



Anant Chaudhary

“I had a fantastic experience with IT Wave Solution. It's undeniably the best place to learn HANA and explore various other IT opportunities. The instructors are highly knowledgeable and dedicated, making the learning process enjoyable and productive. The hands-on experience I gained here was invaluable, and I can confidently say that IT Wave Solution is the go-to destination for anyone looking to excel in the IT field. I highly recommend it!”



Glimpse Of Our Office

Look Who We are

Our office's infrastructure comprises all the necessary software and network resources that are required to deliver IT & Design, Human Resources, Digital Marketing, and training services. We are well-equipped with bright designed work bays for employees and managers having separate cabins with spacious cafeteria and training classrooms



About IT Wave Solution

“IT Wave Solution to Empowering Minds, Transforming Futures: Your Path to Excellence Starts Here!”

IT Wave Solution, a pioneering IT solutions company that has been serving the industry since 2012. With a team of experienced SAP professionals at the helm, we have evolved into a leader in providing comprehensive IT services and training. Our commitment to excellence, innovation, and customer satisfaction sets us apart in the ever-evolving technology landscape. We are a leading company that specializes in providing comprehensive IT solutions, with a primary focus on SAP services and Data Science training for professionals and corporates.

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