WEEKS CERTIFICATION COURSES IN DATA ANALYTICS

Industrial Training

Gain 100 Projects Hands-on Experience

BHARATH INNOVATION &TECHNOLOGIES

Python

600 + Python problems are exercised during the training session to solve complex industrial problems and to prepare for competitive interviews in most of the global environments. These problems are going to help the trainees to go with a clarity in their future prospects and professional career.

Statistical Analysis

The students will learn different types of data types, collection methods, wrangling and cleaning methods. Apart from that various data analysis tools such as Microsoft Excel/Google Sheets, Jupyter Notebooks usage and their applications in data analysis will be covered. Finally, the exploratory data analysis insights will be practiced thoroughly.



4



SQL & Power Bl

40+ Power Bl Projects & Dashboards will be developed to prepare impactful data analytics with attractive visualizations to become professional data analyst. SQL is one of the popular & demanding database technologies used for most of the data analytics applications across the globe.

Technical Writing Skills

Consolidated practice of **technical writing skills** & **paper publishing** is

considered to ensure a data scientist is more expressive &critical in presenting the data with great analytical insights. Sensible statements and storytelling practices will be considered seriously for **about 10 articles**.

This training program is sponsered by

HBIC Solutions





HBIC Solutions





















What is Data Analytics?

Data Analytics is most popular and demanding in the market that allows to use statistical analysis for various domains to experience and extract meaningful insights from structured and unstructured data. In today's data-driven world, organizations rely on data analytics to make informed decisions, optimize operations, and derive new solutions for the business functionalities. From building workable models to uncovering trends and patterns, data analytics has become a pivotal area of studies to nurture in the industries like finance, e-commerce, etc. This field offers endless opportunities for professionals to solve complex problems, enhance business strategies, and shape future with data-driven solutions.



Why with HBIC Solutions?

- A competitive environment to work with
- Allows you to be more critical and competitive in your approach while learning and practicing
- Keeps you on your toes to be catch the phase of training and allows you to solve all defined targets within the defined timelines
- Regular assessment and reviews of your work with one-to-one approach
- Keen monitoring of individual activities during the training that allows you to focus on your individual targets while working with teams
- Ensures that you are catching the technology that is needed by the present industry and markets

INNOVATE, IMPLEMENT & INTEGRATE

for a human touch at workplace with large dataflow in the digital era.

This Program is Ideal for

- Individuals with a bachelor's degree and people who are passionate for learning data analytics.
- IT experts looking to move into roles in data analytics or data science.
- Those already working in business intelligence and looking to expand their knowledge in data science.
- Software developers and project managers who want to integrate data science into their skill set.
- Fresh graduates or individuals at the beginning of their career who want to dive into data science.
- Undergraduate students with a keen interest in data analytics can benefit from this course to gain a strong foundation.
- Individuals looking to understand how to leverage data science for business innovation and entrepreneurship.
- Those working in analytics, digital marketing, or related fields who want to enhance their skills with advanced data science techniques.
- People from non-technical backgrounds but passionate about technology and data science, seeking a career change.

What's Next?

- Scan the QR Code to apply and register with the course.
- Offline courses are recommended for strong interactive sessions with experts.
- Get your timetable and targets in advance with our office representatives.
- Limited seats in each batch, so, be quick enough to register and book a slot.
- Do not miss any session to ensure that you are following the day-to-day targets without any delays to miss the momentum in different sessions.
- Ask for support and email our team for any kind of extra support or attention.



Course Curriculum

Python Programming Language

What is Python?

- Definition
- Key features of Python

Data Types

- Numeric Data Types
- Sequence Data Types
- Text Data Type
- Set Data Types
- Mapping Data Type
- Boolean Type

Data Structures

- Strings
- List(list) Data structure
- Tuple (tuple)
- Set (set)
- Dictionary (dict)

Conditional statements Looping statements Functions File handling Python date time

- Creating Date Objects
- The strftime() Method

Data Analysis

Numpy

- Creating Array
- Array Operations
- np.zeros()
- np.ones()
- np.arange()
- np.linspace()
- Arithmetic operations
- Element-wise Operations
- Broadcasting
- Aggregation functions
- Indexing and slicing
- np.dot()
- Random integers and floats
 Pandas series and dataframe
 - Creating a Series
 - Indexing and Slicing
 - Basic Operations
 - Pandas DataFrame Creating a DataFrame
 - Indexing and Slicing
 - Conditional Selection
 - Missing Data Handling
 - Reindexing
 - Sorting
 - Data Čleaning

Regular Expression

- Create a RegEx object
- search() method
- group() method
- Grouping with Parentheses
- groups() on Match Object
- Use Escape character
- Matching Multiple Groups with the Pipe
- Optional Matching with the Question Mark
- Matching Zero or More with the Star
- findall() in regex
- Matching one or more with the plus
- Matching Specific Repetitions with Curly Brackets
- Character Classes

Matplotlib

• Variety of graphs in Matplotlib

Seaborn

• Variety of graphs in Seaborn

Exception Handling

- Exceptions in Python
- Exception Handling in python



Introduction to SQL

- What is SQL?
- Importance of SQL in Database Management
- Brief History of SQL

SQL Basics

- SQL Syntax
- Data Types in SQL

Creating Databases and Tables

• Syntax and Example

Inserting Data into Tables

- Syntax
- Example

Retrieving Data

- SELECT Statement
- Syntax and Example

Filtering Data with WHERE Clause

• Syntax and Example

Sorting Data with ORDER BY Clause

Syntax and Example

Limiting Results with LIMIT Clause

• Syntax and Example

Advanced Retrieval Techniques

Inner Join

• Syntax and Example

Left Join

• Syntax and Example

Right Join

• Syntax and Example

Full Join

• Syntax and Example

Aliasing Tables and Columns

• Syntax and Example

Modifying Data

Updating Existing Records with UPDATE Statement

• Syntax and Example

Deleting Records with DELETE Statement

• Syntax and Example

Adding New Records with INSERT INTO Statement

• Syntax and Example

Data Aggregation

Grouping Data with GROUP BY Clause

• Syntax and Example

Filtering Groups with HAVING Clause

• Syntax and Example

Aggregate Functions (COUNT, SUM, AVG, MAX, MIN)

Syntax and Example

Statistical Analysis

Introduction to Data Analysis

- What is Data Analysis?
- Importance of Data-Driven Decisions
- Types of Data Analysis: Descriptive, Diagnostic, Predictive, Prescriptive
- Data Analyst Roles & Responsibilities

Data Types and Data Collection

- Types of Data: Structured vs Unstructured
- Data Sources: Databases
- Data Collection Methods

Basics of Statistics Probability Basics Inferential Statistics (Hypothesis Testing)

- Population vs. sample
- Central Limit Theorem
- Confidence intervals
- Null and alternative hypotheses
- p-values and significance levels
- Z-test, Anova Test, Chi-Square Test
- One-sample and two-sample tests (t-tests, z-tests)
- Type I and Type II errors

Tools for Data Analysis

- Microsoft Excel / Google Sheets
- Jupyter Notebooks

Data Wrangling and Cleaning

- Handling Missing Data
- Removing Duplicates
- Data Type Conversion
- Outlier Detection and Treatment
- String and Date Handling
- Normalization and Standardization

Exploratory Data Analysis (EDA)

- Introduction to EDA
- Summary Statistics
- Correlation Analysis
- Data Distributions
- Visualizing Data (Bar, Pie, Box, Histogram, Heatmaps)

Power Bl

What is Power BI? Why use of Power BI?

Importing data into Power BI

• Steps to Import Data

- Power BI Desktop
- Power BI Service
- Power BI Architecture

Getting Started with Power BI

- Downloading and Installing Power BI Desktop
- Creating an Account in Power BI Service
- Signing in to Power Bl

Power Query in Power Bl Power Query Editor

- The query Ribbon
- Home Tab
- Transform Tab
- Add Column Tab
- The View Tab

Queries Pane and the Data Pane Queries Settings Pane and Saving the Work

Data Sources in Power Bl

Connecting to various data sources

- Databases and Files
- Online Services
- Cloud Platforms

• Data Import Options

Data Cleaning

Data preparation and transformation

- Steps in Data Preparation and Transformation
- Data Preparation Tools
- Advanced Data Transformation

Building Visualizations

• Creating Basic Visualizations

Data Modelling in Power BI

- Understanding tables and relationships
- Data Modelling and Relationships
- Calculated Columns and Measures
- Data Model Optimization
- Creating calculated columns and measures
- Using DAX (Data Analysis Expressions) and Mlanguage for advanced calculations

Creating Dashboards and Reports

- Building Interactive Dashboards
- Designing Reports with Multiple Pages
- Adding and Arranging Visuals in Reports

About HBIC Solutions

HBIC Solutions creates an integrated platform for all kinds of industries and institutions to work together using data sciences and analytics. The team considers the raw data from different sectors to evolve with new horizons for their business growth and expansion. The collective efforts of management, engineers, and supporting staff make the work process more flexible and comfortable for our clients approaching us from different locations of the globe.

The core functionalities of the team at HBIC are to understand the client's environment, working process, data and functional flow at various sections, and employee organization to evaluate overall data generated as an outcome of various events. This data is being processed by following scientific approaches to make meaningful summaries and recommendations to our clientele.

Our team is expertise in Python (Programming Language), Machine Learning, Deep Learning, Natural Language Processing (NLP), Neural Networks, AI, PySpark, PyTorch, Computer Vision, TensorFlow, Flask, SQL, R-Language, Power BI, Tableau, Statistical Analysis, Networking Technologies, .Net, C#, Java, Mobile Applications, IoT Applications, etc.

We are focused on creating a unique platform for various sectors by making data science a common approach to evolve new solutions for critical challenges.

Vision

To develop a creative platform with data sciences to integrate various sectors of industry such as software engineering, IoT, manufacturing, businesses, markets, and other industries to establish an accurate visualization of the future market prospects and endeavors.

Mission

To strive hard to harness the power of data science, artificial intelligence (AI), IoT, and mobile & web app development to derive a new horizon for innovation towards transformation of different industries. Establishing an integrated process of cutting-edge technologies with data driven industries to enhance the efficiency, experience, and enable simplified business models.

Global Trend for Data Analytics

Global Market Growth



Expanding Job Market



The global data science industry is anticipated to grow at a Compound Annual Growth Rate (CAGR) of 22.9% until 2026, showing consistent expansion in job opportunities. 700,000+ Data Science Job Postings: The demand for data science professionals is booming globally, with over 700,000 job openings across industries.



High Demand Expert

The global demand for data science professionals is expected to reach 1 Million by 2026 as industries increasingly adopt data-driven decision-making.



Industry Focus

Sectors such as healthcare, finance, retail, and technology are at the forefront, looking for qualified data scientists to lead innovation and improve operational efficiency.



Competitive Salaries

In India, the average salary for an entry-level data scientist is ₹800,000 annually, reflecting the high demand for skilled professionals.



A Competitive Tool

Helping many industrial sectors as a tool to be more competitive along with different technologies. A strong helping hand in the industry.



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