Data Analytics using SQL & Python

Industry relevant job-oriented course to get you hired!
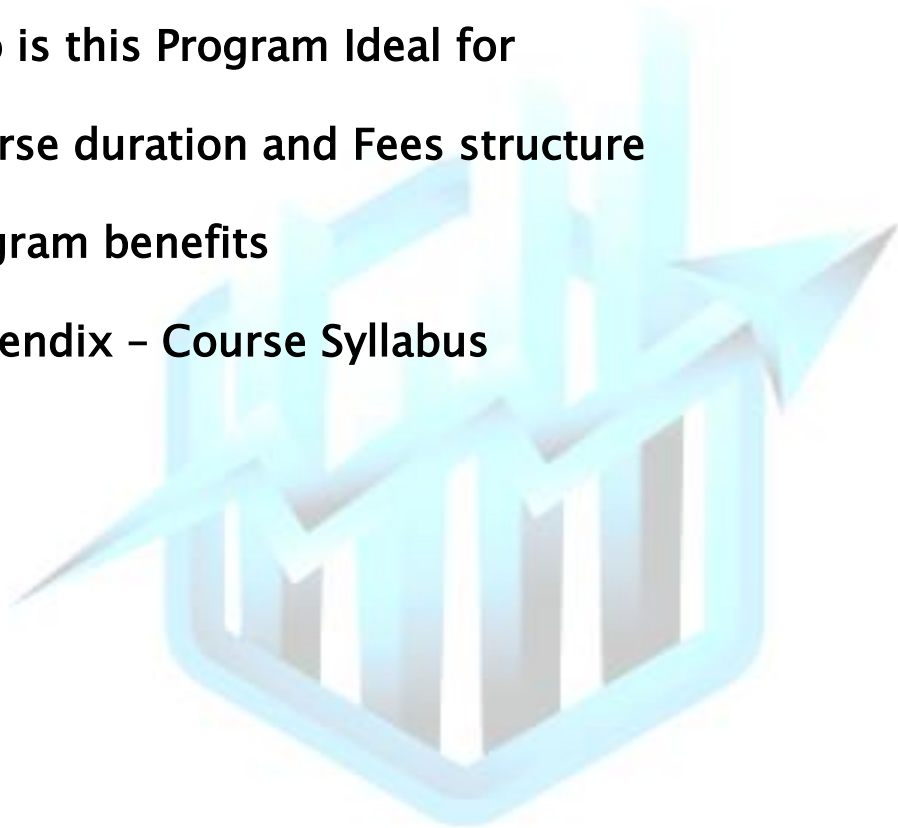
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About TechSense Academy

TechSense Academy, founded in 2021, emerged with a vision to equip individuals with essential skills for thriving in the digital era. Recognizing the pivotal role of data analytics and digital marketing in today's world, TechSense embarked on a journey to deliver impactful education. What sets us apart is our dedication to offering more than just certification courses; we provide comprehensive learning experiences that empower our students to excel in their careers.

Our curriculum is designed to be practical and industry-focused, ensuring that students gain hands-on experience and relevant skills that are directly applicable in real-world scenarios. At TechSense Academy, we believe in not just imparting knowledge but also fostering critical thinking and problem-solving abilities.

Moreover, TechSense Academy goes beyond traditional educational models by offering internship programs. These programs provide students with invaluable opportunities to gain practical experience, network with professionals, and further enhance their skills in real work environments. By integrating internships into our educational framework, we bridge the gap between academic learning and professional practice, preparing our students for success in their chosen fields.

In essence, TechSense Academy is more than just a certification course provider; we are a dynamic educational institution committed to empowering individuals with the skills and experiences needed to thrive in the digital age. Join us on this journey of learning, growth, and opportunity.

About the Course:

Data Analytics using SQL & Python

Our Data Analytics using SQL & Python course is tailored for absolute beginners with no prior programming background. The program commences with a foundational block of Analytics, establishing the essential groundwork for quantitative analytical thinking and basic analytical techniques. It then delves deeper into data manipulation, analytics and visualization using SQL and Python.

Topics and Tools Covered

1. **SQL – MS SQL Server:** RDBMS Concept, Data Manipulation and Advanced SQL

2. **Applied data analytics using Python:** Python fundamentals, data structures, analyse data with NumPy, Pandas, scikit etc and visual insights using matplotlib

Training Methodology

ENGAGE REMOTELY WITH LIVE ONLINE CLASSES

Our training methodology blends the convenience of remote learning with the interactivity of live online classes, offering a dynamic educational experience tailored to your needs. Through our innovative approach, participants can access high-quality training sessions from anywhere in the world, fostering collaboration and engagement in real time.

Key Features:

Remote Accessibility: Participants can join training sessions from the comfort of their own space, eliminating the need for travel and allowing for flexibility in scheduling.

Live Interaction: Our live online classes enable real-time interaction with instructors and peers, promoting active engagement and discussion. Personalized Learning: Participants receive personalized attention and support from instructors, ensuring that learning objectives are met effectively.

Cutting-edge Technology: We leverage state-of-the-art technology to deliver seamless online experiences, incorporating interactive tools and multimedia resources.

Practical Application: Our training methodology emphasizes practical, hands-on learning experiences, enabling participants to apply newfound knowledge and skills immediately.

With our remote training methodology featuring live online classes, you can elevate your learning experience and achieve your professional development goals with ease.

Who is this Program Ideal for ?

This course is tailored to accommodate graduates from any discipline, encompassing both freshers from a variety of fields and seasoned professionals from diverse backgrounds, whether programming-related or not. It welcomes individuals with an analytical mindset, regardless of their educational background. Specifically, this program is suitable for:

- **IT professionals** seeking to deepen their understanding of data analytics.

- **Banking and finance professionals** aiming to enhance their decision-making capabilities through data-driven insights.

- **Marketing managers** interested in leveraging data analytics to refine their marketing strategies and improve ROI.

- **Supply chain network managers** looking to optimize operations and streamline processes using data-driven approaches.

- **Engineers** seeking to apply data analytics techniques to enhance product development and innovation.

- **Analysts** keen on expanding their skill set and staying updated with the latest trends in data analytics.

- **Consultants** who wish to add value to their client engagements by offering data-driven solutions.

- **Domain experts** who recognize the importance of data analytics in their respective fields and seek to harness its potential for organizational success.

Course duration and Fees

Training duration:
- 2 Months : 48 hours live training
- Weekends Classes (Saturday, Sunday)

Training Mode :
- Online (Live Interactive)

Training Cost:
- INR 15000 + GST

Component:
- Live sessions
- 1:1 doubt solving
- Case Studies
- Resume Preparation
- Interview Preparation
- Internship Programme in leading MNC's and Start-ups
- Industry relevant Certification
- 100% Placement Assistance

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Program Benefits

- **Competence in SQL:** Develop a strong foundation in SQL querying and database management, allowing participants to extract, manipulate, and analyze data from relational databases efficiently.

- **Proficiency in Python**: Gain hands-on experience in Python programming for data analysis and manipulation, including data cleaning, transformation, and statistical analysis, enabling them to automate tasks and perform complex analytics.

- **Data Analysis and Interpretation**: Learn to conduct comprehensive data analysis using advanced SQL and Python enabling participants to derive meaningful insights, identify trends, and make informed decisions.

- **Problem-Solving Skills:** Enhance problem-solving abilities by applying data analytics techniques to real-world scenarios, including data-driven decision-making, forecasting, and optimization.

- **Project Management**: Develop project management skills through hands-on projects and capstone assignments, allowing participants to effectively plan, execute, and communicate data analytics projects from inception to completion.

Course Syllabus

SQL: MS SQL Server

Introduction to SQL for Data Analytics

Dive into the world of data with our SQL course, designed to open doors to a thriving career in data analytics. This course provides a foundational understanding of SQL, the cornerstone of data manipulation and analysis in today's data-driven world.

Why SQL?

- Universal Language for Data: Learn SQL, the essential tool for managing and analyzing databases.

- Versatile Application: SQL skills are in high demand across various industries for data analysis, reporting, and decision-making.

- Foundation for Advanced Analytics: Solid SQL skills lay the groundwork for further studies in data science and advanced analytics.

Course Module Overview

Introduction to the Course

- What is Server – DB, DBMS & RDBMS
- Introduction to Databases: Understanding Relational Database Management Systems (RDBMS)
- Different relational databases that exist in market

- **Module 1: SQL Basics**

  - Discover the types of SQL commands, data types, and the fundamentals of SQL syntax and queries.
  - Explore the different clauses and the use of wildcards in data retrieval.

- **Module 2: SQL Functions**

  - Deep dive into the types of functions including aggregate, date, string, and conversion.
  - Learn about grouping data and utilizing aggregate functions for comprehensive analyses.

- **Module 3: Joins**

  - Master the different types of joins to merge data across tables.
  - Understand the nuances of subqueries, including ordinary, correlated, and self-joins.

- **Module 4: Data Aggregation and Analysis**

  - Gain expertise in data summarization techniques using aggregate functions like COUNT, SUM, AVG, MAX, and MIN.
  - Explore advanced concepts such as window functions, pivoting data, and Common Table Expressions (CTEs)..

- **Module 5: Indexes and Stored Procedures**

  - Learn how indexes enhance query performance.
  - Delve into the creation and use of stored procedures and functions for efficient query management

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Applied data analytics using Python

Introduction to Python for Data Analysis

Elevate your analytical capabilities with our specialized Python course, designed for beginners and professionals seeking to harness the power of data in making informed decisions. This training demystifies data analysis techniques, providing you with the Python tools that are the backbone of industry-standard data science.

Why Python?

- User-Friendly: Python is like the friendly introduction to programming. It's easy to read and you'll write less code for big tasks compared to other languages.
- Super Versatile: Use Python for anything from web apps to robots! It's the Swiss Army knife of programming languages.
- The First Building Block: Learning Python paves the way to understand more complex coding concepts. It's your first step into a larger world of technology!

Course Module Overview

- **Module 1: Introduction to Python**

  - Anaconda vs. Standard Python
  - Python IDE (Jupyter)
  - Introduction to Python Installation
  - Python Packages (NumPy, Pandas, Matplotlib)

- **Module 2: Python Fundamentals**

  - Data types and variables
  - Control structures: if-else statements, loops
  - Functions and modules
  - Exception handling
  - Working with files

- **Module 3: Working with Data Structures**

  - Lists and tuples for data storage
  - Dictionaries and sets for data retrieval and manipulation
  - Understanding objects and iterators
  - List comprehensions for data processing

- **Module 4: Data Analysis with NumPy**

  - Understanding NumPy arrays and matrix operations
  - Array indexing and slicing
  - NumPy for statistical analysis

- **Module 5: Introduction to Pandas**

  - Pandas Series and DataFrame
  - Data loading, cleaning, and preparation with Pandas
  - Data manipulation and transformation using Pandas

- **Module 6: Data Visualization with Matplotlib**

  - Basics of data visualization concepts
  - Creating plots, histograms, scatter plots, and bar charts with Matplotlib
  - Customizing plots with labels, legends, and styles

- Interactive visualizations with tools like Plotly (optional)

- **Module 7: Advanced Data Handling**

  - Working with multiple datasets
  - Advanced data filtering and transformation techniques
  - Grouping and aggregation for data analysis
  - Pivot tables and cross-tabulation