Tel: +1-929-672-1814
Email: info@genai-training.com
www.genai-training.com

Course Title: SQL for Data Analysts

Course Price : $299

Course Outline:

Getting Started with SQL
Introduction to SQL and Databases
Overview of SQL and its importance in data analysis
Understanding relational databases
Basic SQL Queries
Writing simple SELECT statements.
Sorting data with ORDER BY
Using LIMIT to restrict query results.
Advanced Query Techniques
Aggregating data with GROUP BY
Data Manipulation and Transactions
Utilizing built-in SQL functions (e.g., COUNT, SUM, AVG, MAX, MIN)
Data Normalization and Database Design
Performance Optimization
Practical Data Analysis with SQL
SQL in Data Science and Analytics
Final Project and Assessment
Projects and Practice.

COURSE TITLE: SQL for Data Analysts			
Course Number (*)	GENAI-106		
Pre/Co-Requisites	None		
Department	Training		
Instructor Name (*)	Yaseer Anwar	**Email (*)**	info@genai-training.com
Office Location	On-line	**Class Hours**	TT: 9:00pm – 10:30PM EST
Telephone No.	+1-929-672-1814		
Class media	Google Meet	**Class Recordings**	GenAI Portal

COURSE INFORMATION/ DESCRIPTION OF THE COURSE

This course is tailored for data analysts seeking to master SQL, the standard language for managing and querying relational databases. Participants will learn to write efficient SQL queries to extract, manipulate, and analyze data, with a focus on real-world applications. The course covers essential topics such as data retrieval, aggregation, joining tables, and subqueries, as well as advanced techniques like window functions and performance optimization. Practical exercises and projects will reinforce learning, enabling participants to handle complex data analysis tasks confidently. By the end of the course, students will be equipped with the skills needed to leverage SQL for insightful data analysis and informed decision-making in professional environments. No prior experience with SQL is required, making this course ideal for beginners and those looking to enhance their data analytics capabilities.

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*LEARNING RESOURCES

* Recommended resources (books, online courses, tutorials)
Books:

- SQL for Data Scientists: “A Beginner's Guide for Building Datasets for Analysis” by Renee M. P. Teate
- “SQL in 10 Minutes”, Sams Teach Yourself by Ben Forta
- Coursera: "SQL for Data Science" by University of California, Davis
- edX: "Databases and SQL for Data Science with Python" by IBM

Khan Academy: Intro to SQL: Querying and managing data.

- Documentation and Tutorials:

W3Schools: SQL Tutorial

- SQL Bolt: Interactive SQL Tutorials
- Community and Forums:

Stack Overflow: SQL tag for Q&A

- Reddit: r/SQL community
- SQLServerCentral: Forums and articles
- Practice Datasets:

Mode Blog: Articles on SQL and data analytics

- Towards Data Science: SQL articles for data science

Tools and Software:

- MySQL Workbench: For practicing SQL queries
- DB Browser for SQLite: Lightweight database browser
- DBeaver: Universal database tool with SQL support

*COURSE OUTCOMES

- Python Proficiency: Develop a strong foundation in Python programming, tailored specifically for data analysis/data engineers’ tasks.
- Data Manipulation: Master data manipulation techniques using Pandas, including data cleaning, merging, reshaping, and aggregation.
- Numerical Operations: Perform complex numerical operations and statistical analysis with NumPy.
- Data Visualization: Create compelling visualizations with Matplotlib and Seaborn to effectively communicate data insights.
- Exploratory Data Analysis (EDA): Conduct thorough exploratory data analysis to identify patterns, trends, and anomalies in datasets.
- Data Cleaning: Learn methods to handle missing data, outliers, and other data quality issues.
- Real-World Application: Apply Python skills to real-world datasets through hands-on projects and case studies.
- Automation Skills: Automate repetitive data tasks to increase efficiency in data processing workflows.

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- Problem-Solving: Enhance problem-solving abilities by tackling various data challenges and developing analytical solutions.
- Data-Driven Decisions: Gain the confidence to use Python for making informed, data-driven decisions in professional settings