

SQL and AI Agent Workshop: Prerequisites and Curriculum



Software Requirements

All students will be required to have all software listed below and installed by the end of the first night of the workshop. If the software is not properly installed by this time, your registration will be transferred. **No exceptions.**

Windows 10 or Windows 11 computer (PC laptops)

Snowflake (Free, 30-day free trial)

Node.js (Free, installation instructions will be provided)

Visual Code (Free, installation instructions will be provided)

Windows 10 or Windows 11 computer (PC laptops)

Google Chrome (Free)

Prerequisites

The skills listed below are **required prerequisites** for participation in the workshop. If you are **not yet comfortable** using these skills in SQL, we kindly ask that you **do not register at this time**, as these topics **will not be covered during the workshop**.

Database structure

Text, dates, and numeric data types

Basic data extracting using SELECT and FROM

Order by

Where

Limiting data

About the Workshop (Curriculum)

This SQL AI Agent Workshop is designed to help you build a real AI-powered SQL analyst that can generate SQL queries, retrieve data from a database, and answer business questions using natural language. In this hands-on workshop, you will:

- Learn how AI agents communicate with SQL databases to answer business questions
- Build an AI application using Node.js, OpenAI, and Snowflake
- Configure prompts that generate accurate SQL queries from plain English requests
- Connect your AI agent to a live SQL database and execute queries automatically
- Retrieve, interpret, and present query results in a user-friendly format
- Implement prompt engineering and error handling to improve AI responses
- Understand the architecture behind AI-powered analytics applications and how they work together

By the end of the workshop, you'll have built a fully functional SQL AI agent capable of translating business questions into SQL, querying a live database, and returning meaningful results—giving you practical experience with one of the fastest-growing applications of AI in data analytics.



DATA TELLS A STORY. BE THE STORYTELLER