ARKANSAS CODING ACADEMY

DATABASE & SQL DEVELOPMENT

Become a Data Professional | 12-Week Intensive Certificate | Hybrid & Virtual Format | AI-Fluent Workflows

PROGRAM OVERVIEW

Accelerate your tech career. This intensive 12-week certificate equips you with the practical, high-demand skills to work professionally with data. Moving beyond introductory syntax, the curriculum integrates relational database design with modern AI fluency. Students learn to write & optimize advanced queries while leveraging AI tools for exploration, rapid debugging, & system documentation—fully mirroring the workflow of modern data teams.

WHAT YOU WILL LEARN

Relational Database Architecture: Design database structures, ERDs, constraints, & tables using DDL.

Advanced Analytical SQL: Conduct complex business analysis using window functions, subqueries, & conditional logic.

Data Transformation & Integrity: Clean, format, & transform raw datasets using DML & string/date functions.

AI-Assisted Workflows: Leverage prompt engineering to debug syntax, refactor queries, and generate documentation.

Process Automation: Build reusable views and stored procedures to automate repetitive database tasks.

THE ROADMAP

Weeks 1–2: Relational Databases & SQL Foundations

Relational systems, data types, ERDs, & basic queries (SELECT, WHERE, GROUP BY).

Weeks 3–4: Data Manipulation & Table Management
Table modifications via DDL/DML, constraints, & data cleaning techniques.

Weeks 5–6: Multi-Table Queries & Set Operations
Dataset relationships using multi-table JOIN frameworks & nested structures.

Weeks 7–8: Advanced SQL for Business Analytics
Time-based trends & structural rankings using window functions.

Weeks 9–10: Database Development & Automation
Automated scripts, reusable views, & robust stored procedures.

Weeks 11–12: Capstone Execution & Presentations
Architect, query, & interpret a real-world dataset for the final showcase.

WHY CHOOSE THIS PROGRAM?

Career Ready: Graduate with a mentor-guided Capstone Project demonstrating full data lifecycle management from design to final analysis.

Target Roles: Qualify for high-growth positions including Data Analyst, Business Data Analyst, SQL Developer, and Junior Data Engineer.

REGISTER NOW ▪ SCHEDULE A DISCOVERY CALL ▪ VISIT OUR WEBSITE AT ARKANSASCODINGACADEMY.COM