■ SQL for Data Science + AI Roadmap (with Platforms)

■ Phase 1: Beginner (Day 1–7) → SQL Foundations

- Day 1: Basics (Databases, Tables, SELECT, INSERT) – W3Schools, SQLBolt
- Day 2: Filtering (WHERE, ORDER BY, LIKE, BETWEEN) – W3Schools, SQLBolt
- Day 3: Aggregates (COUNT, SUM, AVG, GROUP BY) – W3Schools, Kaggle Learn SQL
- Day 4: Joins (INNER, LEFT, RIGHT) – W3Schools, Mode Analytics
- Day 5: Subqueries (IN, EXISTS, Nested) – W3Schools, Kaggle SQL
- Day 6: Functions (String & Date) – W3Schools, SQLBolt
- Day 7: Mini Project – Kaggle SQL Final Exercises (Movies/E-commerce dataset)
- ■ AI Link: Use SQL to extract datasets for ML/AI.

■ Phase 2: Intermediate (Day 8–20) → Analytical SQL

- Day 8–9: Advanced Joins (SELF JOIN, UNION) – HackerRank SQL
- Day 10–11: Correlated Subqueries – Mode Analytics, Kaggle SQL
- Day 12–13: CTEs (WITH, Recursive) – W3Schools, Kaggle SQL
- Day 14–16: Window Functions (ROW_NUMBER, RANK, SUM OVER) – Mode Analytics, HackerRank
- Day 17–18: Advanced Functions (CASE, Date/Time) – W3Schools
- Day 19–20: Views & Stored Procedures – MySQL Docs, W3Schools
- ■ AI Link: Preprocess and engineer features for ML models.

■ Phase 3: Advanced (Day 21–30) → SQL for Data Science & AI

- Day 21–22: Indexes & Optimization – MySQL Docs
- Day 23–24: Transactions (ACID) – HackerRank SQL
- Day 25–26: Import/Export (CSV ↔ MySQL) – MySQL Docs
- Day 27–28: SQL + Python Integration – Pandas, SQLAlchemy, PyMySQL
- Day 29–30: Capstone Project – Kaggle Datasets, UCI ML Repository
- ■ AI Link: End-to-end pipeline – SQL → Python → ML/AI.

■ Platforms by Stage

- Learning Concepts: W3Schools, SQLBolt, Mode Analytics
- Hands-on Practice: HackerRank, LeetCode SQL, Kaggle Learn
- Datasets: Kaggle Datasets, UCI ML Repository
- Integration for AI/DS: Python (Pandas, SQLAlchemy, PyMySQL, Jupyter Notebook)