

## MONTH 3: DATABASES & CLOUD FUNDAMENTALS

### WEEKS 9–10: RELATIONAL DATABASES (SQL)

- **Database Design & Administration**
  - Combine typical SRE tasks (e.g., monitoring database performance, basic query optimization).
  - Practical lab: Set up replication or backups, if time allows, to underscore reliability.
- **Project:** Implement a Simple Database with CRUD Operations
  - Must include performance profiling of queries (explain plans, indexing strategy).

### WEEKS 11–12: CLOUD COMPUTING BASICS

- **Introduction to Cloud Platforms (AWS/Azure/GCP)**
  - Go beyond just “Hello World;” introduce how to set up security groups, VPC networks, or IAM roles.
  - Stress cost management basics, as large enterprises track usage meticulously.
- **Lab:** Deploy a Basic Application to the Cloud
  - Require logs to be captured in a centralized location.
  - Follow best practices for ephemeral environments (infrastructure that can be easily spun up or destroyed).

**Suggested Improvement:** Encourage participants to pursue a foundational cloud certification, if time and budget permit, to validate their skills.