

Database for Software Developers

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Why this course?

Importance of Database Design

- Data Accuracy and Integrity
- Performance and Scalability
- Sensitive Information
- Business Intelligence
- Decision-Making Processes

What will we learn?

Part 1: The World of Databases

- The Why?
- Types of Databases
- RDBMS vs NoSQL

Part 2: Data Modeling

- Database Design Process
- Designing ER Diagram

Part 3: Schema Design

- Creating Database
- Creating Tables
- Data Types
- Normalization

Part 4: SQL (Basics)

- Retrieving Records, Filtering, Limiting, Ordering
- Inserting, Updating, Deleting Records
- Constraints and Keys, Composite Keys, Transactions
- Joining Tables, Union and Intersects
- String, Numeric, Date, Geospatial Functions
- Grouping, Aggregating, Analytical Functions

Part 5: SQL (Intermediate)

- Index Types, Algorithms, Creation, and Usage
- Identifying Slow Queries and Optimizing With Index
- Subqueries
- Views
- Temporary Tables
- Full-Text Search
- Triggers
- Stored Procedures

Part 6: SQL (Advanced)

- Storage Engines
- Performance Optimization
- Materialized View
- System Variables
- Querying Metadata

Part 7: Basic Administration

- Basic MySQL Security
- Managing Database Users
- Data Importing/Exporting
- MySQL Server Optimization
- InnoDB Optimization

Part 8: Production Challenges

- Locking
- Basic Replication
- Database Backup/Restore
- Migration Tools
- Monitoring Tools

Part 9: Real Life Projects

- Point of Sales (POS)
- Building Blocks of a SaaS

Student Survey

<https://cutt.ly/jey3doCr>



Q&A