

Database Systems Design, Implementation, and Management

Course Plan

Haitham A. El-Ghareeb

June 30, 2019

Faculty of Computers and Information Sciences

Mansoura University

Egypt

helghareeb@mans.edu.eg

Contacts

- <https://www.haitham.ws>
- <https://youtube.com/user/helghareeb>
- <https://www.github.com/helghareeb>
- <http://eg.linkedin.com/in/helghareeb>
- helghareeb@mans.edu.eg

Part 1: Database Concepts

1. Database Systems
2. Data Models

Part 2: Design Concepts

- 3. The Relational Database Model
- 4. Entity Relationship (ER) Modeling
- 5. Advanced Data Modeling
- 6. Normalization of Database Tables

Part 3: Advanced Design Implementation

- 7. Introduction to Structured Query Language (SQL)
- 8. Advanced SQL
- 9. Database Design

Part 4: Advanced Database Concepts

- 10. Transaction Management and Concurrency Control
- 11. Database Performance Tuning and Query Optimization
- 12. Distributed Database Management Systems
- 13. Business Intelligence and Data Warehouses
- 14. Big Data and NoSQL

Part 5: Databases and the Internet

15. Database Connectivity and Web Technologies

Part 6: Database Administration

16. Database Administration and Security

Summary

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