Database Systems Design, Implementation, and Management

Course Plan

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Why Database Systems

Database Systems

1. DBs and DB Systems are Everywhere
2. Core Course - Mainly for Information Systems
   - `https://youtu.be/u0w3YVvjyGY`
3. Summer Course
4. I don't teach it in my Faculty
5. Computer Graphics follow up

Authors and Books Tour

Curriculum

Part 1: Database Concepts

1. Database Systems
2. Data Models

Part 2: Design Concepts

Part 3: Advanced Design Implementation

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

Practice and Labs

MySQL

1. Supplementary but Standalone Course
2. MySQL Server and Shell
3. MySQL Workbench
4. Covers almost all introduced concepts
5. PHP and Node.js Twins
6. Python will be used for some activities

Course Delivery

e-Learning

1. Google Classroom
2. Link will be available soon
3. Weekly Lecture - Youtube
   - youtube.com/helghareeb
4. Telegram Channel for Communication
5. Github for Course Resources
   - github.com/helghareeb/DB19
   - github.com/helghareeb/MySQL-Complete-Course
6. Weekly assessment
7. Final Exam
8. Certificates will be available

Course Schedule

Official Dates

1. Course starts officially: Friday - 19th July 2019
2. Pre-release
   - You can follow the available materials on Youtube, and Github
3. Lecture based Course

https://www.haitham.ws