Schedule Databases 2020-2021

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| Week date | Topics | Clips | Exercises | Assignment | Book |
|------------------|--|------------------|---|-----------------------------|---|
| 6 tue Feb 9 | Intro; Relational model | | No session | | 1; 2.1-2.3 |
| 6 thu Feb 11 | Relational algebra | RA1 RA2 | Defining your data; Algebra | | 2; 7-7.1.1 |
| 7 tue Feb 16 | ERD FD: concept | FD1 | Session 1 | | 4 - 4.6; 3 - 3.1 |
| 7 thu Feb 18 | More FDs: lossless decomposition, BCNF | FD2 | Identification; Lossless decompositions | | 3 - 3.3, not 3.2.8 |
| 8 tue Feb 23 | SQL | SQL1.1 SQL1.2 | Session 2 | | 6 - 6.5; 7-7.2, <7.3>, 7.4 |
| 8 thu Feb 25 | Further normalization: 3NF, DP | NORM1 NORM2 | Queries | | 3.4 (with <3.4.2>), 3.5, |
| 9 tue Mar 2 | 4NF, indexing | | Session 3 Lab1 | | 3.6 - 3.6.2, 3.6.4; 8.3 |
| 9 thu Mar 4 | Constraints, triggers, view | | Qualities of decompositions | Deadline group registration | 7 - 7.5; 8; 10.1; |
| 10 tue Mar 9 | Break: no classes | | Session 4 Lab 1 | Deadline hw 1 | |
| 10 thu Mar 11 | Break: no classes | | Lab assistance | Deadline lab 1 | |
| 10 fri Mar 12 | | | | | |
| 11 tue Mar 16 | TP: concurrency | CC1 CC2 | Session 5 | | 18 - 18.3, 18.4.1, 18.4.2, <remainder of<br="">18.4>,</remainder> |
| 11 thu Mar 18 | TP: recovery | REC1 REC2 | Recovery | | 19.2.1, 19.2.2; 17, 1919.1.5; |
| 12 tue Mar 23 | 2PC; Query processing (algebraic rewriting) | | Session 6 | 12/3 Deadline HW2 | 20.5; 15.1, 15.1.3, 15.1.4, 15.3 - 15.3.4 15.4.6, <15.6.1 - 15.6.3> |
| 12 thu Mar 25 | Query processing (algorithms) | | Query processing | | <16.1>, 16.2, 16.3 (with<16.3.2>) |
| 13 tue Mar 30 | Assorted topics | | Session 7 Lab 2 | 24/3 Deadline HW3 | |
| 13 thu Apr 2 | Assorted topics | | | | |
| 14 tue Apr 7 | Example examination | | | | |
| 14 thu Apr 9 | spare | | | | |

⁻ means "up to and including"; < > means "additional reading

Assorted topics

Het oorspronkelijke plan was dat Yannis Velegrakis een gastcollege zou geven over diverse actuele onderwerpen. Omdat dit niet door kon gaan, heeft Yannis enkele links doorgegeven. Dit is geen tentamenstof, maar gericht aan de geïnteresseerden.

Information Integration: An Introduction

https://medium.com/cracking-the-data-science-interview/an-introduction-to-big-data-data-integration-40715baa7961

Data Cleaning:

https://www.youtube.com/watch?v=GMxCL0PBHzA

RDF (Adding Semantics to your data)

https://www.europeandataportal.eu/sites/default/files/d2.1.2 training module 1.3 introduction to rdf sparql en edp.pdf

Big Data:

https://www.youtube.com/watch?v=bAyrObl7TYE

NoSQL Databases:

https://www.youtube.com/watch?v=uD3p_rZPBUQ

https://www.youtube.com/watch?v=ql_q07C_Q5I&t=30s