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 erratum[16]: C -> B does not hold	Session 1 (for SQL DDL: see slide model-ra:10)		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		
10 fri Mar 12				**Deadline lab 1**	
11 tue Mar 16	TP: concurrency	CC1 CC2	Session 5		18 - 18.3, 18.4.1, 18.4.2, <remainder of 18.4>,
11 thu Mar 18	TP: recovery	REC1 REC2	Recovery		19.2.1, 19.2.2; 17, 19.- 19.1.5;
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			**Deadline lab 2**	

- 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=qI_g07C_Q5I&t=30s