Schedule Databases 2022-2023

(version 2023322 16:00, changes to last version are marked)

Week date	Topics	Clips	Exercises	Assignment	Book
6 tue Feb 7	Intro; Relational model	Online session	Defining your data		1; 2.1-2.3; 7.1.1
6 thu Feb 9	ERD Relational algebra	RA1 RA2	Algebra; Session 1 (for SQL DDL: see slide model-ra:10)		4 - 4.6; rest of 2;
7 tue Feb 14	FD: concept	FD1 erratum[16]: C -> B does not hold	FDs; Lossless decompositions		3 - 3.1
7 thu Feb 16	More FDs: lossless decomposition, BCNF	FD2	Session 2	**Deadline HW 1**	3 - 3.3, not 3.2.8
8 tue Feb 21	SQL	SQL1.1 SQL1.2	Queries		6 - 6.5; 7-7.2, <7.3>, 7.4
8 thu Feb 23	Further normalization: 3NF, DP	NORM1 NORM2	Session 3 Lab1		3.4 (with <3.4.2>), 3.5,
9 tue Mar 28	4NF, indexing		Qualities of decompositions		3.6 - 3.6.2, 3.6.4; 8.3
9 thu Mar 2	Constraints, triggers, view		Session 4 Lab 1		7 - 7.5; 8; 10.1;
10 tue Mar 7	Break: no classes		Online lab assistance	**Deadline HW 2**	
10 thu Mar 9	Break: no classes		Lab assistance		
10 fri Mar 10				**Deadline lab 1**	
11 tue Mar 14	TP: concurrency	CC1 CC2			18 - 18.3, 18.4.1, 18.4.2, <remainder of 18.4>,
11 thu Mar 16	TP: recovery	REC1 REC2	Recovery Session 5		19.2.1, 19.2.2; 17, 19.-19.1.5;
12 tue Mar 21	2PC; Query processing (algebraic rewriting)	2PC QP1			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 23	Query processing (algorithms)	QP2 QP3 QP4	Session 6 Query processing		<16.1>, 16.2, 16.3 (with<16.3.2>)
13 tue Mar 28	Guest lecture Yannis Velegrakis				
13 thu Mar 30	Assorted topics		Session 7 Lab 2	**Deadline HW3**	
14 tue Apr 4	Spare				
14 thu Apr 6	Example exam		Lab 2	**Deadline lab 2**	

Apr 13/20				**?? final exam ??**	

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

Assorted topics

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