Schedule Databases 2024

Version <mark>20240220 15:30</mark>, changes to last version will be <mark>marked</mark>.

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Week date	Topics	Clips	Exercises	Assignment	Book
6 tue Feb 6	Intro; Relational model		Ex 1,2 (for SQL DDL: see slide model-ra:10) Defining your data		1; 2.1-2.3; 7.1.1
6 thu Feb 8	Relational algebra	RA1 RA2	Ex 3-5 Algebra		4 - 4.6; rest of 2;
7 tue Feb 13	ERD FD: concept	FD1 erratum[16]: C -> B does not hold	Ex 6-9 FDs;		3 - 3.1
7 thu Feb 15	More FDs: lossless decomposition, BCNF	FD2	Ex 10-12 Lossless decompositions	**Deadline HW 1**	3 - 3.3, not 3.2.8
8 tue Feb 20	SQL	SQL1.1 SQL1.2	Queries		6 - 6.5; 7-7.2, <7.3>, 7.4
8 thu Feb 22	Further normalization: 3NF, DP	NORM1 NORM2	Ex 15-19 Lab1		3.4 (with <3.4.2>), 3.5,
9 tue Feb 27	4NF, indexing		Qualities of decompositions Ex 20-22		3.6 - 3.6.2, 3.6.4; 8.3
9 thu Feb 29	Constraints, triggers, view		Lab 1 Ex 25		7 - 7.5; 8; 10.1;
10 tue Mar 5	*Break: no classes*		Lab 1	**Deadline HW 2**	
10 thu Mar 7	*Break: no classes*		Lab 1		
10 fri Mar 8				**Deadline lab 1**	

Two more pages

11 tue Mar 12	TP: concurrency	CC1 CC2	Ex 26-32		18 - 18.3, 18.4.1, 18.4.2, <remainder of 18.4>,
11 thu Mar 14	TP: recovery	REC1 REC2	Ex 35-38 Recovery		19.2.1, 19.2.2; 17, 19.-19.1.5;
12 tue Mar 19	2PC; Query processing (algebraic rewriting)	2PC QP1	Ex 39-40, 44		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 21	Query processing (algorithms)	QP2 QP3 QP4	Session 6 Query processing		<16.1>, 16.2, 16.3 (with<16.3.2>)
13 tue Mar 26	Assorted topics MapReduce				Slides will follow
13 thu Mar 28	Discussion of example examination				See GitHub: exam16.pdf
14 tue Apr 2	Guest lecture Yannis Velegrakis				Slides will follow
14 thu Apr 4	Spare				

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