

Introduction and Background

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1 Administrivia

Announcements

Assignment

Read 3.1–3.8

From Last Time

There was a last time?

Outline

1. Textbook material overview
2. Semester project overview.
3. LAMP stack.
4. Question set 1.

Coming Up

The entity-relationship model, part 1.

2 Textbook Material

1. Chapters 1 and 2: Introduction
2. Chapter 3: Entity-Relationship model
 - (a) Entities: Student, Class
 - (b) Attributes: ID, Name
 - (c) Relationships: EnrolledIn
3. Chapter 4: Relational model
 - (a) Data modeled as relations (mapping from one set to another); set theory
 - (b) Implemented as tables — rows are *tuples*; columns are *attributes*
4. Chapter 5: Relational databases and SQL
5. Chapter 6: Normalization

Aim is to ensure that we have a “good” model of the data; eliminate/reduce redundancies, ensure consistency.
6. Chapter 9: Transactions
7. Chapter 8: Security



8. Chapter 13: Optimization

Computational effort in query execution.

3 Semester Project

1. Review the handout.
2. Labs: SQL, Flask.

4 LAMP Stack