

VNUHCM - University of Science  
Faculty of Information Technology

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**CTT102**

**Introduction to  
Database Systems**

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# Timetable

## ■ Lecture

- Tuesday, 13:30 ~ 17:10
- May 07 ~ August 04, 2018
- Break
  - June 18 ~ 30, 2018
- Room I44
- Final exam: August 6 – 18, 2018

## ■ Lab

- Announce later
- TA : Luong Vi Minh ([lvminh@fit.hcmus.edu.vn](mailto:lvminh@fit.hcmus.edu.vn))

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# Objective

- Understand and explain
  - Roles of the database in an information system
  - Basic concepts of the database
- Apply common data models for modeling data
- Master query languages to exploit the relational databases
- Learn skills of building a query in DBMSs
- Declare the integrity constraints on datatabases
- Evaluate a database schema
- Learn skills of critical thinking in practice

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# Learning outcomes

- (1) Know *the role of the database* in organizations
- (2) Present *basic concepts* of the databases
- (3) Draw *the entity relationship model (ER)* at a basic level
- (4) Understand concepts of *the relational data model*
- (5) Master of *query languages*
- (6) Use a DBMS, for example *MS SQL Server* or *PostgreSQL*, to
  - Declare schema of a relational database
  - Exploit the data

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# Learning outcome

- (7) Detect *integrity constraints* in the relational database
- (8) Categorize concepts of *functional dependency and normal forms*
- (9) Know *future trends* of the databases

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# Where you are?

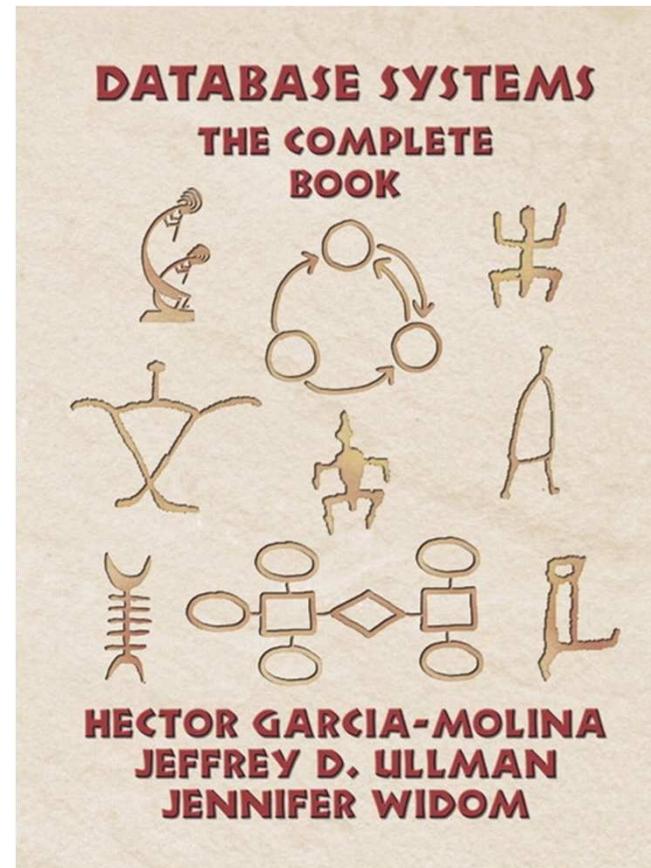
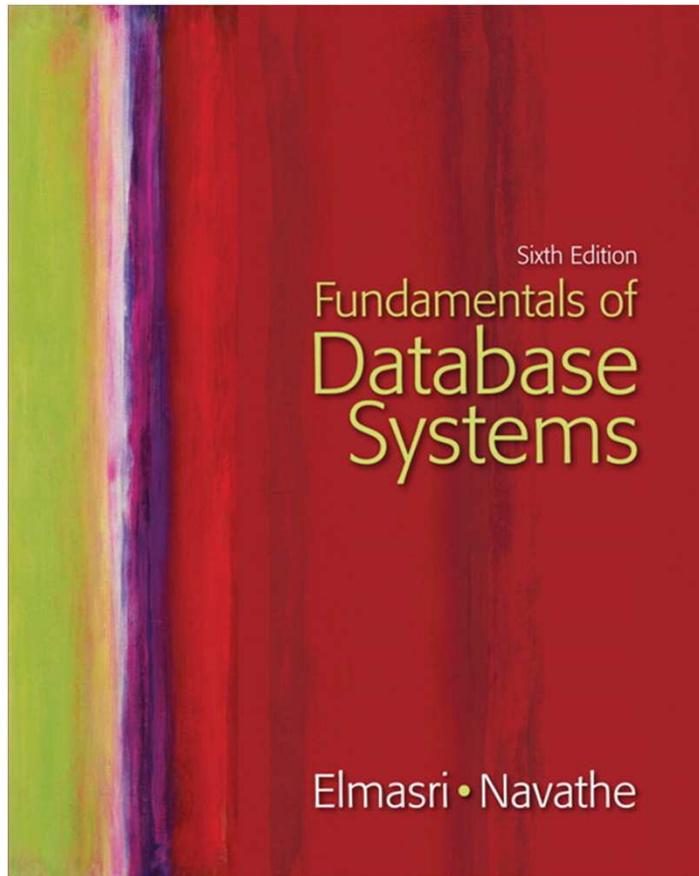
- CTT102 - Introduction to database systems
  - Organize the data using relational data model
  - Manipulate on the database
- CTT203 - Database management systems
  - Apply functions of a DBMS
- CTT204 - Information system: Analysis & Design
  - Develop an information system

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# Content

- 01- Introduction
- 02- Entity relationship model
- 03- Relational data model
- 04- Relational algebra
- 05- Structured Query Language
- 06- Relational calculus
- 07- Integrity constraints
- 08- Functional dependency and Normal forms

# Textbook



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# Resource

- Moodle
  - Lecture note & assignment & lab documents
  - Announcement
  - <http://courses.ctdb.hcmus.edu.vn/course/view.php?id=175>

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# Grade

- Lecture (40%)
  - Final exam - Writing
  - Closed book, 90 minutes
- Assignment (20%)
  - In-class
  - Homework
- Lab (40%)
  - Many mini-tests and one midterm exam
  - Closed book

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# Rule

- In class
  - Keep quiet (do not chat)
  - Switch your mobile phone to silent mode
  - Raise your hand if you have comments
  - Be on time
  
- If you break the rules
  - Have to quit the class
  - Be marked “Absent” from class

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# Rule

- Assignment
  - Have to do over 70%, grade will be counted
  - Cheating on one assignment → fail this course
- Must attend the final exam
  - Assignment and lab's work will be counted to the final grade

