CTT102

Introduction to Database Systems
**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)
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 databases
- Evaluate a database schema
- Learn skills of critical thinking in practice
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
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
Content

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

- Moodle
  - Lecture note & assignment & lab documents
  - Announcement
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
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
Rule

- **Assignment**
  - Have to do over 70%, grade will be counted
  - Cheating on one assignment $\rightarrow$ fail this course

- **Must attend the final exam**
  - Assignment and lab’s work will be counted to the final grade