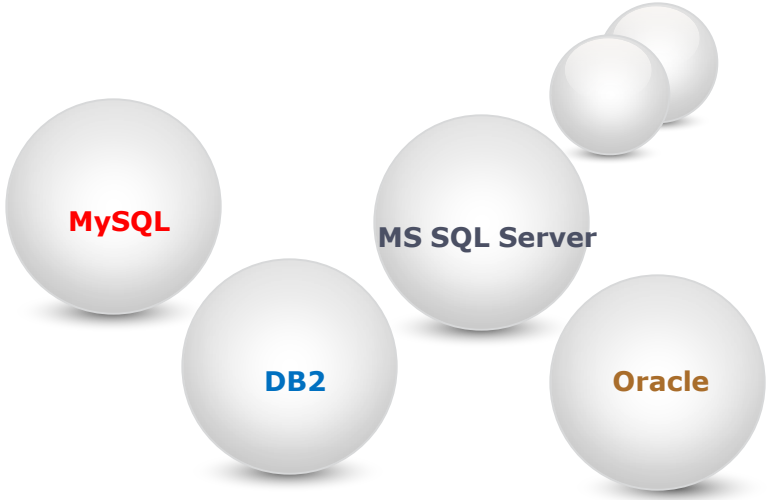

ICT200 Introduction to Database Design

My Profile
Course Information
Course Description
Course Objectives
Syllabus Contents
Assessment
References

--> Lab
Chapter 1
Chapter 2
Chapter 3
Chapter 4
Chapter 5
Chapter 6
Chapter 7

Last updated: 04/09/2019

<me.who?>

MUHD EIZAN SHAFIQ ABD AZIZ
Dip . Comp. Sc. (UiTM)
B. Sc (Hons) Info. Sys. Engineering (UiTM)
M. Sc (Info. Technology) (UiTM)
Faculty of Computer & Mathematical Sciences
UiTM Cawangan Pahang

Room: Bangunan Sarjana, Level 6, Room 43
Phone Ext: 09-351 5407
Mobile Number: 017-6961613 (8am-5pm)
Email: eizan.aziz@gmail.com
Web Blogs: http://eizanaziz.uitm.edu.my/blog

<course_information.what?>

Code: ITS232/ICT200

Course: Introduction to Database Design

Credit Unit: 3

Contact Hour: 4

Course Status: Core

Prerequisites: NONE

<course_description.what?>

In the information age today, enormous amount of data is kept in files and databases. The knowledge **to manipulate and manage** these files is beyond doubt. By using a database package, the students will be able to appreciate the needs for database systems rather than the traditional file systems.

<course_learning_outcomes.what?>

- Describe database approach
- Illustrate Entity-Relationship Model
- Demonstrate normalizing relations until 3NF
- Construct queries in Structured Query Language (SQL)

<syllabus_contents.what?>

CHAPTER	TOPIC
1.0	Database Concepts
2.0	Data Models
3.0	The Relational Database Model
4.0	Entity Relationship (E-R) Modeling
5.0	Normalization Of Database Tables
6.0	Database Design
7.0	Structured Query Language (NO FINAL EXAM)

<assessment.how?>

Assessment: 100%

Final Exam: 40%

Continuous Assessment (60%)

- A1 (ERD): 5% (w9)
- A2 (Norm): 5% (w11)
- T1: 10% (Chap 1-4) (w10)
- Ind. Lab Assessment: 10% (w7)
- Ind. Lab Test: 10% (w12)

Grp. Project: 20%

- Proposal: 4%
- Database: 8%
- Final Rpt: 8%

<references.what?>

- Peter Rob and Carlos Coronel, ***Database Systems: Design, Implementation and Management***, International Thomson Publishing (ITP), Ninth Edition, 2011
- David M.Kroenke and David J. Auer, ***Database Concepts, 4th Edition***, Pearson International Edition, 2010
- Saadiah, Fauzi, Norehan, Wan Nor Amalina, ***Introduction to Database***, McGraw Hill, 2006

<lab_session.what?>

[1] Lab Objectives & Introduction

[2] Simple SQL Queries

[3] Retrieving data from Multiple Tables

[4] Scalar Functions and Arithmetic

[5] Column Functions and Grouping

[6] UNION

[7] Using Subqueries

<compulsory_software.what?>

- IBM DB2 (v9.7 – win7/8, v11 – win10)
  - En Azri (Juruteknik): 014 221 5144 (Bilik Peratalatan Komputer)
  - Cmd reference: http://dublintech.blogspot.my/2011/10/db2-cheat-sheet.html
- MS Visio/**MySQL Workbench**/Oracle SQL Developer Data Modeler – design tool
  - http://csraub.uitm.edu.my/softwarecsraub/software/

1. What is **data**? Give example(s) of data.
2. What is **information**? Give example(s) of an information.
3. Describe data vs. information.
4. What is a **database**?
5. What is a **Database Management System (DBMS)**?
6. Give at least **five (5)** examples of DBMS.
7. What is a(n) **table/entity/relation**? Give example(s) of a table.

8. What is a(n) **attribute/column/field**? Give example(s) based on Question 7.
9. What is a **row/record/tuple**? Give example(s) based on Question 8.
10. What is a **connectivity of relationship**? State all types of connectivities.
11. What is a (1) **data redundancy**, (2) **data inconsistency**, and (3) **data anomaly**? How these situations affect each others?

TH4NK YoU