Introduction (OUA Version)

Note to OUA Students.

In the On-campus version of Database Concepts, Labs and Tutorials are combined and delivered as Tute/Labs. The following the Tute/Lab sheet for on-campus students modified for OUA use.

Part I.

1. Explain the following terms.
   - data
   - database
   - database management system
   - data model
   - query
   - data constraints

2. Regarding the Village Cinemas, suppose that a DBMS is used to manage the data for the Village Cinemas website (http://www.villagecinemas.com.au/) . Discuss and answer questions.
   a. What are the classes of things that are kept in the database? Examples of things include Movie, Cinema and Screen session.
   b. For each class, what details do you think are kept in the database? For instance for a movie, the information might include title, classification and release date.
   c. Based on the website, what queries can be answered with the current database?
   d. What queries cannot be answered with the cur rent database but you would like the database to answer?
   e. Based on (a)— (d), how do you think the DBMS has helped organization of the Village Cinemas data.

3. Regarding the following example scenarios, discuss if the data should be managed with a text file, DBMS or MS Excel spreadsheet.
   a. To keep the contact details of your friends.
   b. The RMIT Student Registrar would like to keep student academic records over years. These records are initially entered and later may be updated by many staff from different schools. The academic records are used, for example, to check student performance and eligibility for graduation.
   c. To keep a record of the details of all classes you are attending this semester. For example,
      -- isys1057, Database concept lecture, Wednesday 10.30am in 10.4.27, and taught by Jenny Zhang.
      -- isys1057, Database concept tutorial, Thursday 2.30pm in 10.9.48, and taught by Ian Baker.

Part II.

The objective of this part is to get you familiarized with the teaching learning tools and used in this course. Try your best to finish all the tasks.

RMIT Student Email account

As a student of RMIT, you have an official student Email account. If you r student number is 1234567, your student email account then will be

s1234567@student.rmit.edu.au

This is the address where the university communicate with you. For example, your assignment results will be sent to this address. Access the following URL to check your emails:

http://studentems.rmit.edu.au .

Do the following once your login: (ask lab assistants if you need help)

- Check if there is any email in your mailbox.
- Send one of your classmates a message.

Unix Basics

- Login into a machine called "Yallara". This is a unix machine (in contrast to. windows machines).
- List the contents of your home directory.
- Create a new directory called "DBC" in your home director y.

Course homepage

The course homepage is at the following URL:

http://www.rmit.edu.au/learninghub

Open the course homepage with a web browser and answer the following questions:

- From the course guide, are there an y hurdles to pass the course?
- From the Blackboard --> Weekly Schedule, Which University week we are in now?
- How many assignments will you have? When will the first assignment be released, and what is its due time?
- Download and save this lab sheet as a file "labsheet1" in the directory "DBC" of your home directory.

The Oracle DBMS [Changed for OUA students]

Oracle is a DBMS in our School for your practical work. You will need to build databases in Oracle and write queries against the Oracle SQL*Plus system to get information from databases. A read-only sample database called “movies” has been built for you to practice.

- Select the Oracle access method that right for you. There are there methods of access.
    - Access using Putty. This provides command line access to the Oracle system. You should have existing skills using CLI if you want to use this method. Putty is available as both Installed version and portable version (does not require admin privileges)
    - Web access. This method provides a web page interface to Oracle. It’s probably the easiest method to use as there is nothing to install and a low learning curve to use it.
    - SQLDeveloper. This is a Java application available from Oracle. It has a number of advanced features and can be used to connect to other databases. You may find this a helpful application if you are continuing database work beyond the course. It requires registration to get the software and installation on your PC.
- Go to Blackboard and download the video(s) for the type of Oracle access you want. Review the video and acquire any software you may need.
- Set up access to Oracle and confirm it is operating correctly by reproducing the SQL quer in the videos (SQL is case insensitive);

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Select *
From tab;
```

If you have trouble getting your access to Oracle working, please post to BlackBoard for help or email the Instructor

Drawing a diagram and producing a pdf file

You will need to draw ER diagrams (taught later) and produce pdf files fo r your assignments.

1. You should use a drawing tool to compose your ER diagram, for example Omnigraffle (Mac), Visio (Windows), or MS Word (Windows). Word is available on the School windows servers. **[OUA Students may also like to try/use Dia, a diagram drawing package available for both Windows and Linux. Any of these packages are fine]**

2. You then plug in the diagram into a word file which contains the rest of your assignment.

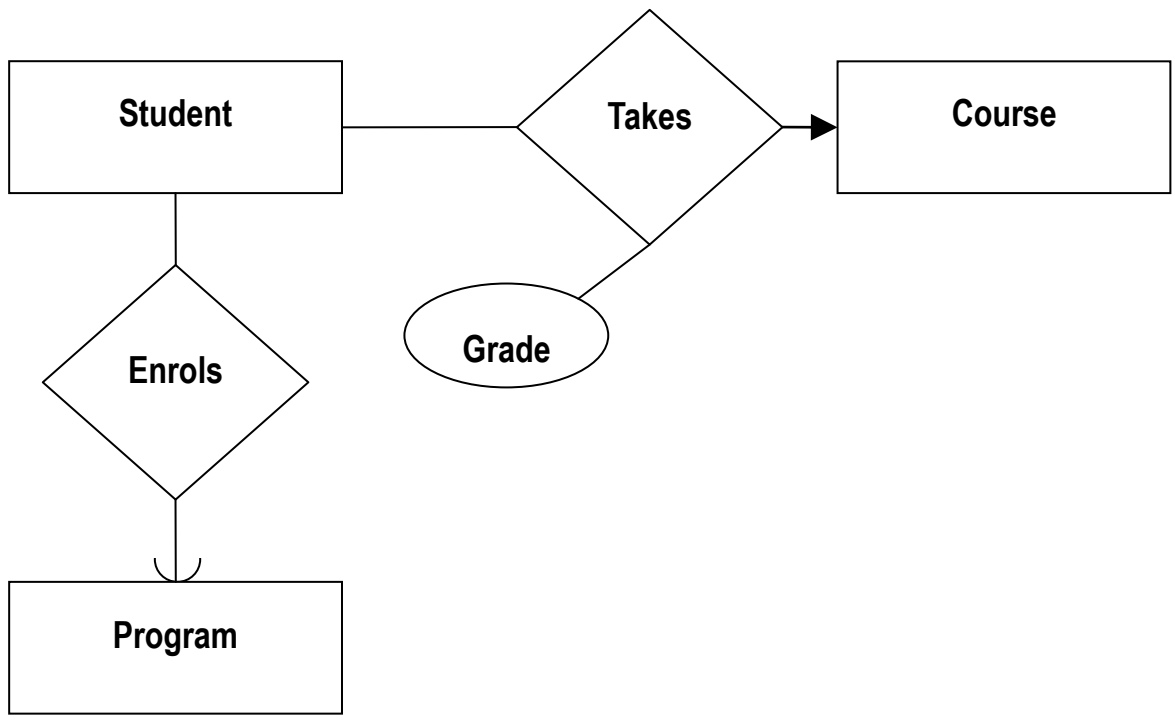
3. Convert the word file to a pdf file by following the following steps below:

From the top menu, File --> Print

Printer name --> CutePDF Writer

Click "OK".

Save as --> supply a file name.



Task: Create the following ER diagram (you will understand its meaning later) with Your selected Diagramming package. Export the diagram to Word and save it in a file called test- er.doc.

Then convert test-er.doc into a pdf file named test-er.pdf. You have successfully created a pdf file when you can view test-er.pdf with Adobe Reader.