COMPSCI 280 S1
Enterprise Software Development

Course Information

Learning Outcomes

- Students will develop a distributed application using an Enterprise technology.
- The application will involve a database, and in developing the application, students will demonstrate skills in **data modelling, manipulating** and **querying**; and **accessing a remote database server.**
- Students will also learn how to **model the system's requirements** and design using established notations, to leverage a component based Enterprise technology, and to use tools to support their activities.
- By the end of the course students who succeed will be competent **C# Programmers**.

Lecturers & Tutor …

- Lecturers
  - Dr Ulrich Speidel
    - Email: ulrich@cs.auckland.ac.nz,
    - Phone: 3737599 ext: 85282,
    - Office: 731.331 (Tamaki Campus) – City office TBA
    - Office hours: whenever I'm at Tamaki or in the city from 1-2 pm on Tuesdays and 2-3 pm on Wednesdays in room 303S.491
  - Angela Chang (course coordinator)
    - Email: angela@cs.auckland.ac.nz
    - Phone: 3737599 ext 86620
    - Office: 303S.585
    - Office hrs:
      - whenever the office door is open

Tutors

- Tutors
  - Sandeep Patil
    - Email: spat251@aucklanduni.ac.nz
    - Office: 491
    - Office hours: Fri 1:30-2:30
  - Adeel Ali
    - Email: sali080@aucklanduni.ac.nz
    - Office: 491
    - Office hrs: Th 10-11

Lectures

- Lectures:
  - We will have 3 lectures (3 hours) a week. You need to keep up with the pace:
  - Each lecture contains the following
    - **Recommended Reference (where applicable)**
      - View the Agenda slide of each lecture
    - **Handout**
      - Note: Please study the handout before attending the lecture. We won't go through all slides during lecture.
      - To download lecture notes, examples and exercises
        - http://www.cs.auckland.ac.nz/compsci280s1c
    - **MySQL examples**
      - See course website under "Resources"
    - **C# Examples**
      - View the readme.txt
    - **Lab exercises**
      - You must do the lab exercises to make sure you really understand the course content
    - **Demonstration movies (C# part)**
      - That will show you how to create some controls at design-time. It is very important in database programming.
      - Example: 23.1_01AddDataSource.wmv

Assessments

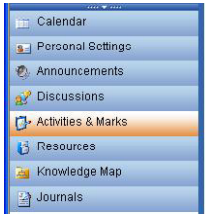
- Assignments (14%)
  - A1 (7%) : due on Friday, April 8, 11:59pm
  - A2 (7%) : due on Friday, June 3, 11:59pm
- MC Cecil Tests/Quizzes (1.5% each)
  - Quiz 1: from Friday, March 18, 9:00am to Monday, March 21, 11:59pm
  - Quiz 2: from Friday, March 25, 9:00am to Monday, March 28, 11:59pm
  - Quiz 3: from Friday, May 06, 9:00am to Monday, May 9, 11:59pm
  - Quiz 4: from Friday, May 13, 9:00am to Monday, May16, 11:59pm
- Test: 20%,
  - Wednesday, Apr 27, 3pm-4pm
- Exam: 60%
- Note: Students must obtain a pass in both the practical (assignments) and non-practical work (test + exam) in order to pass as a whole

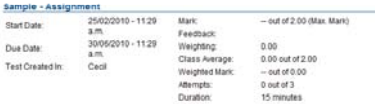
Cecil MC Tests

- Quizzes are run online through Cecil.
- You MUST sit each quiz during the time period and you MAY use any computer in any lab or at home as long as there is a network connection (no slower than 64K) to the Cecil website.
- Each quiz has 15 randomly selected questions and contributes 1.5% to the final.
- You have 30 minutes to complete each quiz, and may make up to three attempts at each quiz, with your best mark being counted.

Instructions

- To login to Cecil 7.0 :
  - Open http://cecil.auckland.ac.nz from Internet Explorer
  - Click on the LOGIN icon and enter in your NetID and NetPassword.
- To start your Cecil Multiple-choice test:
  - Click on the Current **courses** from the navigation pane on the left of the screen.
  - Click on the course from the navigation pane.
  - Click on the **Activities & Marks** function for the course. You will see the list of all the activity type for the course and the respective weightings.
  - Double-click on the **Assignment** from the Activity Type.
  - Double-click on the current multiple-choice to open it.
  - Click on the **Start Assessment** button to start.





Tutorials

- Tutorials are not compulsory but are strongly recommended.
- All tutorials will be started from week 2.
- Streams
  - Tuesday, 9am-10am, 303S-G75
  - Thursday, 9am-10am, 303S-175
  - Thursday, 1pm-2pm, 303S-G75
  - Friday, 9am-10am, 303S-175
  - Friday, 12noon-1pm, 303S-G75

Schedule – Section 1- Ulrich Speidel

Week	T	W	F	Notes
1	1 March: Course intro. DB server, DB tables, CREATE TABLE and SELECT queries	2 March: Finding records in tables, WHERE clause, keys	4 March: DELETE, UPDATE, ALTER TABLE, DROP TABLE, design considerations	
2	8 March: More complex where clauses, table aliases	9 March: Working with multiple tables	11 March: Updating and deleting multiple tables, mapping tables and entity relationships in UML	
3	15 March: DB normalisation	16 March: joins, HAVING clause	18 March: views, computed fields	**Quiz 1**
4	22 March: working with constraints	23 March: dirty reads, transactions, locking	25 March: functions, stored procedures	**Quiz 2**
5	29 March: insert and update triggers	30 March: overflow	1 April: review, AFD	
6	5 April: Intro to C#	6 April: Data types and operators	8 April: Classes, objects & methods	**A1 due**

Schedule – Section 2

Week	T	W	F	Notes
7	**26 / Apr** *Holiday*	27 Term Test	29 Arrays & Strings	
8	3/May Operator Overloading	4 Indexers	6 Inheritance	**Quiz 3**
9	10 Exception File IO	11 Delegates	13 Process & Automation	**Quiz 4**
10	17 Intro to Ado.net	18 DataCommands	20 DataSets	
11	24 DataTables	25 DataSet Updates	27 DataBinding DataRelations	
12	31 Advanced Updates	1/Jun ASP.NET	3 Revision	**A2 due**

MySQL database access

- Using MySQL at uni: see the Lab sheets for lecture 01 to 03
- Access is possible via command line client and a web-based PHPMyAdmin interface
- Beyond the first lectures, you may also use the HeidiSQL client on the lab computers
- Downloading for use at home: see the Resources link on the course website.

Downloading VS 2010

- Science department has a license for a range of Microsoft software. The software is available for free download for staff and students from this url:
  - http://msdn.cs.auckland.ac.nz/
  - Note, you must be enrolled in the COMPSCI280 course to have access to the directory.
- Steps:
  - Click the Log in button to log in.
  - Select the software, you can choose from the following
    - Visual Studio 2010 Express (x86) - DVD (English) Click the Go button
  - Check the name of the program and click the Add to Cart button to continue.
  - Click the I Agree button
  - Click he Check Out button
  - Fill in your surname, firstname and email address
  - Click the Download link
  - Click the Download button to start downloading

Miscellaneous

- Email:
  - You MUST check your university email account on a weekly basis as vital information may be sent to you regarding assignments, deadlines, tests, etc...
- Forum:
  - Again, check the forum on a weekly basis too
  - Don't put any source code/answer on the forum
  - Tutors and/or lecturers will also check the forum and provide some information
- Your Marks
  - Marks can be checked via the Cecil system.
    - Note: he Cecil system is only used to record the marks obtained by students in the course. All other resources are stored on the COMPSCI web site maintained by the Computer Science Department:

How to progress while learning

- 1. Read the lecture notes after each lecture
  - Make a summary of what you have been taught during the lectures
  - Redo examples already dealt with (during the lectures)
  - Do examples and exercises without referring to the lecture notes
- 2. If you have questions or do not understand something.
  - Do I
    1. Read MySQL or MSDN Library/Microsoft Visual Studio 2010 Documentation
    2. Attend the tutorials
    3. Check the forum
    4. Ask other students
    5. Ask a tutor during office hours
    6. Email/ask lectures during office hours
- 3. How to prepare exams
  - a. Do previous years' exams
  - b. Do exercises