Introduction: Course, SQ3R, Basic Concepts

IS240 – DATABASE

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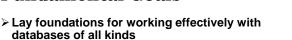mailto:mkabay@norwich.edu   V: 802.479.7937

1

Topics

➢ Goals
➢ Classes
➢ Textbook
➢ Lab Books
➢ Labs
➢ Web Resources
➢ Grading
➢ SQ3R
➢ Importance of Homework
➢ Term Project
➢ Overview of DBMS History and Applications
➢ Prep for Next Class

2

Fundamental Goals

➢ **Lay foundations for working effectively with databases of all kinds**
  ❑ MS-Access is an *example* of a relational database
  ❑ If you wish to use Oracle or SQL you may
  ❑ Learn one well and you will learn others quickly
➢ **Focus on concepts, not rote**
➢ **Assimilate ideas and apply them in theoretical and practical exercises**

3

Classes

➢ **Time: 13:00:03 – 13:49-57 MWF**
  ❑ Mondays & Wednesdays Dewey 108
  ❑ Fridays in Dewey Basement Forensics Lab
➢ **Don't be late for class**
  ❑ Prof won't be late
  ❑ Prof won't make you late
➢ **Don't miss class**
  ❑ Attendance taken at start of class
  ❑ >3 unexcused absences = OUT
➢ **Read before you arrive**
  ❑ Questions in class
  ❑ Discussions of questions on NUoodle group

4

Registering for Dr Post's DBDesign Site

➢ **Go to this address:**
  ❑ https://www.jerrypost.com/SSL/BookLogin/Default.aspx?S=0
➢ **Buy your textbook (see next slide) and get your 2 registration keys**
➢ **Fill in a username and password and the rest of the information**
➢ **Write down the course password you will need to enter NU IS240 section HERE:**
  ❑ _____
➢ **Download your lab textbooks too (see later)**

5

Textbook

➢ **Post, G. V. (2007). *Database Management Systems: Designing and Building Business Applications,* 4th Edition**
  ❑ https://www.jerrypost.com/SSL/BookLogin/NewStudentGoogle.aspx
  ❑ **Purchase and download the complete 4th edition as a PDF file for $10 (!)**
    ✓ 3rd edition (hardcover) was $138.13
  ❑ **Paying gives you a pair of keys to allow you to register for instructional Web site**
    ✓ Provide instructor with COPY OF KEYS as proof of purchase.
➢ **Dr Post's books are *excellent***
  ❑ Well designed and written
  ❑ Logical flow of topics
  ❑ Clear examples and diagrams
➢ **Lab exercises closely linked to subject matter in theory book**

6

Lab Books (Log in first)

➤ *Workbooks* available for Access, Oracle, and SQL Server
  - ❑ http://www.jerrypost.com/Books/DBBook/BookFiles/DBWorkbooks.html
  - ❑ Choose whichever you wish to learn
  - ❑ If you don't know, use Access 2007 (available on NU lab computers and many of your own)
➤ *Database Management Projects*
  - ❑ All the projects from which you can choose a term project
  - ❑ http://www.jerrypost.com/Books/DBBook/BookFiles/Projects4e.pdf
➤ Student data files for homework
  - ❑ http://www.jerrypost.com/Books/DBBook/StudentFiles/StudentFiles.html

Virtual Labs Courtesy NUACC

➤ Norwich University Advanced Computing Center
  - ❑ Dr Peter R. Stephenson, PhD, CPE, PCE, CISSP, FICAF
  - ❑ Norwich University CISO, Chair of Computing
➤ Lab in Dewey basement Forensics Lab
  - ❑ Labeled "Forensics / War Room / Software Engineering" next to public lab
  - ❑ Used on some Fridays for discussions/demos
➤ *Software available at any time from any computer with Internet access!*
  - ❑ Your own computer in your own dorm room
  - ❑ Any NU lab computer
  - ❑ Anywhere on campus or elsewhere with WiFi

Web Resources:

➤ Login to the class first
  - ❑ https://www.jerrypost.com/SSL/BookLogin/Default.aspx?S=0
➤ Download Rolling Thunder database in appropriate format
  - ❑ http://www.jerrypost.com/RollingThunder/RTIntro.html
➤ Download Sally's Pet Store materials
  - ❑ http://www.jerrypost.com/PetStore/SallyIntro.html
➤ Download other sample databases (ZIP)
  - ❑ http://www.jerrypost.com/DBMS/Downloads/Downloads.html

Grading

➤ NO CURVE: everyone can get 100% if they do well (or everyone can fail)
➤ Homework: total 50%
  - ❑ Theory questions & practical lab assignments 30%
  - ❑ Term project 20%
➤ Quizzes 20%: closed-book review 10 minutes
➤ Mid-term 10%: open-book theory review
➤ Final exam 20%: open-book theory and practical review in regular exam period
➤ Extra homework & projects: increase final score

The Notorious Kabay Homework Flood

➤ Earlier versions of this course were known for the amount of homework
➤ Visited Prof Post's site and discovered that Kabay's homework assignments were 5-10 times greater than the author's own course assignments
➤ This year's course will not be so grueling
  - ❑ Reducing required homework to more manageable levels
  - ❑ Still offering opportunities for extra credit for extra homework
  - ❑ Can help students become highly skilled

The SQ3R Method

➤ Background
➤ Survey
➤ Question
➤ Read
➤ Recite
➤ Review

Background to SQ3R

➤ **Studying is not just reading and rereading**
➤ **Oberlin College studies in 1960s -> SQ3R**

13

SQ3R: Survey

➤ **1st pass: entire document**
➤ **2nd pass: section**
➤ **3rd pass: chapter**
➤ **4th pass: 1st sentences of paragraphs**

14

SQ3R: Question

➤ **Jot down ideas**
➤ **Pictures**
➤ **Diagrams**
➤ **Legends**

15

SQ3R: Read

➤ **One paragraph at a time**
➤ **Boldface**
➤ **Italics**

16

SQ3R: Recite

➤ **After every paragraph**
➤ **Stop, look away**
➤ **Summarize main ideas**
➤ **Own words**
➤ **If not clear, reread**

17

SQ3R: Review

➤ **At end of each study period**
➤ **Daily**
➤ **Weekly**
➤ **Monthly**

18

Importance of Homework

- Theory isn't enough
- Critically important that you learn to use a real DBMS
  - Design
  - Create
  - Enter data
  - Extract data
  - Reports

The Term Project

- Small homework assignments drill individual skills
- Term project offers opportunity to integrate
- Semi-realistic experience will stand you in good stead
- Offer choice of projects to reflect diversity of class background
- May do more than one if you want more challenge
- By all means support each other to do better – discuss, share ideas
  - But do not copy designs and code verbatim
  - Do your own work once you have understood

DBMS History and Applications: A Personal View

Prepare for Wednesday

- GET YOUR TEXTBOOKS IMMEDIATELY!
  - Do not delay!
- Apply the Survey from SQ3R to Post's entire book and then SQ3R Chapter 1.
- Come prepared for next class discussion about the differences between *file-based* systems and *database systems*
- Determine which database product you are going to use and find out how to start it on the computer(s) you are going to use this semester
- Apply Survey step to your chosen lab workbook

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DISCUSSION