

CSC 742
Database Management Systems

Topic #3:
DB Programming Basics

Spring 2002

CSC 742: DBMS by Dr. Peng Ning

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What You Need

- DBMS
- SQL (DDL and DML)
 - ◆ One of the major topics in this course.
 - ◆ Foundation of SQL: Relational Calculus
- Host languages
 - ◆ Examples: Java, C/C++, Perl
- Tools for user interface
 - ◆ Forms, reports, etc.
- Others
 - ◆ E.g., CASE tools for application design

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Course DBMS

- Course DBMS
 - ◆ Sybase
 - ◆ remus.csc.ncsu.edu
 - ◆ Information about accessing the course DBMS:

http://courses.ncsu.edu/csc742/lec/001/sybase-info/sybase_access.html

JDBC Basics

- Read the tutorial at the following link.
 - ◆ <http://java.sun.com/docs/books/tutorial/jdbc/basics/index.html>

JDBC Basics (Cont'd)

■ Using JDBC

- ◆ Load the driver
- ◆ Connect to the DBMS
- ◆ Use embedded SQL to interact with the DBMS

JDBC Basics (Cont'd)

■ Basic JDBC Objects

- ◆ Connection
 - ◆ Abstract represent the connection to the DBMS
- ◆ Statement
 - ◆ Can be used to execute queries and update the DB.
- ◆ ResultSet
 - ◆ Used to hold the result of queries.

JDBC Basics (Cont'd)

- Specific information you need to know
 - ◆ Driver for the course DBMS:
jdbc:sybase:Tds:remus.csc.ncsu.edu
:4000

Development Environments

- Forte for Java
 - ◆ <http://www.sun.com/forte/ffj/>
 - ◆ Community Edition: freely available
 - ◆ On eos machines:
 - ◆ *add forte*
 - ◆ *forte4j*
- Emacs + JDEE
 - ◆ JDEE: Jave Development Environment for Emacs
 - ◆ <http://jdee.sunsite.dk/>



Project Description

- <http://courses.ncsu.edu/csc742/lec/001/project.html>