Database System

北京交通大学软件学院

王方石 教授

E-mail: fshwang@bjtu.edu.cn

Office: YF west 803

Office hour : Tuesday 14:30-16:30

<u>Download materials from</u>

<u>Course platform</u>

<u>Or</u>

<u>ftp://202.205.101.168</u>

UserID: Class Materials   pwd:rj13

Introduction to the Course

Students：

Junior at fall semester

Prerequisite：

Java or VC，Data Structure

For Practice Course:

Install one kind of DBMSs such as the latest version of Oracle, MySQL, SQL Server before the third week.

Grades

Average performance： (compose **50 %**)

◆Test1（**10 pts**）： introduction & relational database.

◆Test2（**25 pts**）： SQL.

◆Test3（**15 pts**）： Normalization & DB design.

Final exam: (compose **50 %**)， **Open-book exam**

	Test 1	Test 2	Test 3
Time	**4**	**11**	**14**
Max score	**10**	**25**	**15**
coverage	**Introduction& Relational database**	**SQL**	Normalization & DB design

Textbook and references

1 Thomas Connolly, Carolyn Begg．Database Systems ： A Practical Approach to Design, Implementation, and Management.（5th Edition）Electronic Industry Publisher. （电子工业出版社）2012.1

2. Jeffrey D.Ullman, Jennifer Widom. A First Course in Database Systems (third edition), China machine press, 2008.8.1.

3. 王珊，萨师煊。《数据库系统概论》（第5版），高等教育出版社, 2014.9 (for Chinese students)

4.王珊《数据库系统概论（第5版）习题解析与实验指导》高等教育出版社 2015年7月

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Chapter 4 Theory for Relational Database

◆ Problems

◆ Functional Dependency

◆ Armstrong's axioms

◆ The Process of Normalization

Chapter 5 Database Design

◆Database Development Lifecycle

◆Entity/Relationship Model

◆Enhanced Entity-Relationship Model

◆From E/R Diagrams to Relations

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Chapter 8 Database Recovery

8.1 Failure

8.2 Transactions and Recovery

8.3 Recovery Facilities（恢复机制）

Backup, Log files, Checkpoint

8.4 Recovery Techniques (恢复技术)