

上机实验（1）

1. 安装运行 DBMS 服务，创建模式与数据库。
2. 创建关系表（学生、班级、院/系、课程、选课、教师、授课），定义关系属性及其联系，选取合适的数据类型和长度，确定表的主码、外码。
3. 定义必要的索引、列级约束和表级约束。
4. 查看和修改表结构，修改和删除索引。
5. 熟悉操作使用数据库管理工具（SQL Server Management Studio）和在线交互式运行工具（<https://www.jdoodle.com/execute-sql-online>）。
6. 实现和测试下列 SQL 查询功能：
 - 1) Find the names of all the instructors from Biology department
 - 2) Find the names of courses in Computer science department which have 3 credits
 - 3) For the student with ID 12345 (or any other value), show all course_id and title of all courses registered for by the student.
 - 4) As above, but show the total number of credits for such courses (taken by that student). Don't display the tot_creds value from the student table, you should use SQL aggregation on courses taken by the student.
 - 5) As above, but display the total credits for each of the students, along with the ID of the student; don't bother about the name of the student. (Don't bother about students who have not registered for any course, they can be omitted)
 - 6) Find the names of all students who have taken any Comp. Sci. course ever (there should be no duplicate names)
 - 7) Display the IDs of all instructors who have never taught a course.
 - 8) As above, but display the names of the instructors also, not just the IDs.