

## **CSE302: Database Systems**

### **Practice Queries (Lab 03)**

#### Aggregate Queries

1. Find the average budget of all departments.
2. Find the minimum and maximum salary among all instructors.
3. Find the average salary of instructors for each department.
4. Find the total number of students in each department. Show results in descending order of total number of students.
5. Find the total number of students in Comp. Sci. and Elec. Eng. Departments.
6. List all instructors and the total number of sections they taught.
7. List the courses offered in Spring 2010 along with the number of sections offered.

#### HAVING Clause

8. Find the average salary of instructors for each department where the average salary is at least 80000.
9. Find the average salary of instructors in each department with at least 2 instructors.
10. Find the total number of students in each department where the number of students is at least 2.

#### Other Queries

11. Find the name of the instructor who gets the highest salary.
12. Find the name of the department which has the highest number of students.
13. Find the name of the department which has the lowest budget.
14. List the instructor name who taught the most sections.
15. Find the instructor id and name who advises the most students.

#### Set Operations

16. Get a list of unique course IDs from courses and prerequisites.
17. Find the course IDs that are both prerequisites and offered courses.
18. Find course IDs that are offered but are not prerequisites.
19. Find course IDs that are either prerequisites or offered courses, but not both.
20. Find course IDs that are prerequisites for at least one course and are offered in either Fall 2009 or Spring 2010.