

# ADBC - Interactive SQL - Queries-Basic Animations

To access the SQL Module, go to <http://adbc.kennesaw.edu/> [If not highlighted:  
Click on the words, SQL  
Then click on the words, Interactive SQL]

## Queries – Basic

To access this section, click on the words, Queries - Basic



**Animated DataBase Courseware**  
Interactive Approach for Teaching the Principles of DataBase Concepts

DATABASE DESIGN   **SQL**   TRANSACTIONS   SECURITY   ADVANCED CONCEPTS   INFO

**INTERACTIVE SQL** | SQL PSEUDOCODE | EMBEDDED SQL | STORED PROCEDURES AND TRIGGERS | REFERENTIAL INTEGRITY

Introduction

Scenarios

- ☐ DDL and DML
- ☒ Queries - Basic
- ☐ Queries - Advanced
- ☐ Views
- ☐ Misconceptions

Full Screen

Help

## Interactive SQL

Practice using SQL to interact with a database system.

For an overview of the concepts reinforced in this module, [click here to the introduction](#).

<b>DDL and DML</b>	Use SQL to create tables and manipulate data.	<b>Views</b>	Practice creating a view that will store SQL statements for future use.
<b>Basic Queries</b>	Use SQL to perform simple queries on a single table of a database system.	<b>Misconceptions</b>	Practice recognizing and avoiding common SQL errors.
<b>Advanced Queries</b>	Use SQL to perform queries on multiple tables of a database system.		

This lab will use all 7 tabs. Write all SQL statements in the same script file and save into a text file called Lab2-queriesbasic.sql. Add a comment block to the top of your script as follows:

```
/* **** */
/* Name:           */
/* Class:    CSE 3153    */
/* Term:      Summer 2017    */
/* Lab #:    2           */
/* **** */
```

---

For each answer, add a comment line right before it with the question such as:

```
/* What pets are in the database? */
```

```
Select Name
```

```
From PET;
```

### **Projection:**

Identify the SQL that answers each of the following questions:

What pets are in the database?

What are the names of the pets in the database?

What are the ID numbers and breeds of the pets in the database?

What are the names, species, and breeds of the pets in the database?

What are the names, genders, and altered status of the pets in the database?

### **Restriction:**

Identify the SQL that answers each of the following questions:

What dogs are in the database?

What cats are in the database?

What rabbits are in the database?

What pets are female?

What pets are male?

### **Function:**

Identify the SQL that answers each of the following questions:

What is the total number of scores received for the tests taken?

What is the sum of the scores of the tests taken?

What is the average of the scores of the tests taken?

What is the lowest score of the tests taken?

What is the highest score of the tests taken?

### **Group By:**

Identify the SQL that answers each of the following questions:

What is the total number of scores received by each student?

What is the total number of scores received for each test?

What is the sum of the scores for each student?

What is the average score for each test?

What is the average score for each student? What is

the lowest score received for each test? What is the

lowest score received by each student? What is the

highest score received for each test? What is the

highest score received by each student?

**Having:**

Identify the SQL that answers each of the following questions:

- What is the total number of scores for each test with a total score of at least 200?
- What is the total number of scores for each student with a total score of at least 200?
- What is the total number of scores for each student who has taken exactly three tests (ie has 3 scores)?
- What is the total number of scores for each test that has been taken by exactly 3 students (ie has 3 scores)?
- What is the average score for each test which has received exactly three scores (ie taken by 3 students)?
- What is the average score for each student with exactly three scores (ie taken 3 tests)?
- What is the lowest score for each test with exactly three scores (ie taken by 3 students)?
- What is the lowest score for each student with exactly three scores (ie taken 3 tests)?
- What is the highest score for each test with exactly three scores (ie taken by 3 students)?
- What is the highest score for each student with exactly three scores (ie taken 3 tests)?

**Distinct:**

Identify the SQL that answers each of the following questions:

- What are the names of all of the different pets in the database?
- What are the distinct names of the pets in the database?
- What are the species of all of the different pets in the database?
- What are the distinct species of the pets in the database?
- What are the genders of all of the different pets in the database?
- What are the distinct genders of the pets in the database?
- What are the genders and altered status of all of the different pets in the database?
- What are the distinct genders and altered status of the pets in the database?

**Order By:**

Identify the SQL that answers each of the following questions:

- Who are the pets in the database, sorted by ID number?
- Who are the pets in the database, sorted by name?
- Who are the pets in the database, sorted by name, in reverse order?
- What are the names, species, and breeds of the pets in the database, sorted by ID number?
- What are the names, species, and breeds of the pets in the database, sorted by name?
- What are the names, species, and breeds of the pets in the database, sorted by name, in reverse order?
- What are the names of the pets in the database, sorted by ID number?
- What are the names of the pets in the database, sorted by name?