

Intro to Data Science for Business – Bus 314  
SQL Lab 1

There are numerous online applications capable of accepting SQL statements and automatically generating feedback, which is one of the quickest ways to develop SQL proficiency. A set of well-designed step-through tutorials can be found at SQLzoo and is the basis of the SQL labs in this class.

[https://sqlzoo.net/wiki/SQL\\_Tutorial](https://sqlzoo.net/wiki/SQL_Tutorial)

For this intro lab, start with “SELECT basics” and proceed through (and including) “SELECT nobel.” Copy and paste your queries (text only) into this document.

PART 1: SELECT basics ([https://sqlzoo.net/wiki/SELECT\\_basics](https://sqlzoo.net/wiki/SELECT_basics))

1. The example uses a WHERE clause to show the population of 'France'. Note that strings (pieces of text that are data) should be in 'single quotes'; **Modify it to show the population of Germany:**
  
  
  
  
  
  
  
  
  
  
2. Show the name and the population for 'Sweden', 'Norway' and 'Denmark':
  
  
  
  
  
  
  
  
  
  
3. Which countries are not too small and not too big? Show the country and the area for countries with an area between 200,000 and 250,000:

Part 2: SELECT quiz ([https://sqlzoo.net/wiki/SELECT\\_Quiz](https://sqlzoo.net/wiki/SELECT_Quiz))

Provide your score to the SELECT quiz here. You will not be graded on your score, I just use these data points as indicators of where the class is as a whole:

PART 3: SELECT FROM world ([https://sqlzoo.net/wiki/SELECT\\_from\\_WORLD\\_Tutorial](https://sqlzoo.net/wiki/SELECT_from_WORLD_Tutorial))

1. N/A.

2. Show the name for the countries that have a population of at least 200 million:
  
  
  
  
  
  
  
  
  
  
3. Give the name and the per capita GDP for those countries with a population of at least 200 million. (Note, you will need to include a calculation in your SELECT statement. The formula for GDP is in the HELP note.
  
  
  
  
  
  
  
  
  
  
4. Show the name and population in millions for the countries of the continent 'South America':
  
  
  
  
  
  
  
  
  
  
5. Show the name and population for France, Germany, Italy:
  
  
  
  
  
  
  
  
  
  
6. Show the countries which have a name that includes the word 'United':
  
  
  
  
  
  
  
  
  
  
7. Show the countries that are big by area or big by population. Show name, population and area:

8. SKIP.

9. Show the name and population in millions and the GDP in billions for the countries of the continent 'South America':

10. Show per-capita GDP for the trillion-dollar countries to the nearest \$1000:

11. Show the name and capital where the name and the capital have the same number of characters:

12. Show the name and the capital where the first letters of each match. Don't include countries where the name and the capital are the same word:

13. Find the country that has all the vowels and no spaces in its name:

Part 4: BBC quiz ([https://sqlzoo.net/wiki/BBC\\_QUIZ](https://sqlzoo.net/wiki/BBC_QUIZ))

Provide your score to the BBC quiz here. You will not be graded on your score, I just use these data points as indicators of where the class is as a whole:

PART 5: SELECT FROM nobel ([https://sqlzoo.net/wiki/SELECT\\_from\\_Nobel\\_Tutorial](https://sqlzoo.net/wiki/SELECT_from_Nobel_Tutorial))

1. Change the query shown so that it displays Nobel prizes for 1950:

2. Show who won the 1962 prize for Literature:

3. Show the year and subject that won 'Albert Einstein' his prize:

4. Give the name of the 'Peace' winners since the year 2000, including 2000:

5. Show all details (yr, subject, winner) of the Literature prize winners for 1980 to 1989 inclusive:
6. Show all details of the presidential winners:
7. Show the winners with first name John:
8. Show the year, subject, and name of Physics winners for 1980 together with the Chemistry winners for 1984:
9. Show the year, subject, and name of winners for 1980 excluding Chemistry and Medicine:
10. Show year, subject, and name of people who won a 'Medicine' prize in an early year (before 1910, not including 1910) together with winners of a 'Literature' prize in a later year (after 2004, including 2004):

11. Find all details of the prize won by PETER GRÜNBERG:

12. **SKIP.**

13. List the winners, year and subject where the winner starts with Sir. Show the most recent first, then by name order.

14. SKIP THIS ONE – does not work in all SQL environments.

Part 6: Nobel Quiz ([https://sqlzoo.net/wiki/Nobel Quiz](https://sqlzoo.net/wiki/Nobel_Quiz))

Provide your score to the Nobel quiz here. You will not be graded on your score, I just use these data points as indicators of where the class is as a whole.