SQL - Basics

Viraj @datatastemaker

September 3, 2016

This document uses the data set **world** from the sqlzoo.net, to practice various **SQL** basic queries

Let's first have a glimpse of the dataset world

```
##           name continent    area population          gdp          capital
## 1 Afghanistan      Asia  652230   25500100  20364000000            Kabul
## 2      Albania    Europe   28748    2821977  12044000000           Tirana
## 3      Algeria    Africa 2381741   38700000 207021000000          Algiers
## 4      Andorra    Europe     468      76098   3222000000 Andorra la Vella
## 5       Angola    Africa 1246700   19183590 116308000000           Luanda
##   tld
## 1 .af
## 2 .al
## 3 .dz
## 4 .ad
## 5 .ao
```

The dataset have below variables/columns

```
## [1] "name"       "continent"  "area"       "population" "gdp"
## [6] "capital"    "tld"
```

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';

```
SELECT population FROM world WHERE name = 'Germany'
```

```
##    population
## 1   80716000
```

2. Checking a list The word IN allows us to check if an item is in a list. Show the name and the population for 'Ireland', 'Iceland' and 'Denmark'.

```
SELECT name, population FROM world
WHERE name IN ('Ireland', 'Iceland', 'Denmark');
```

```
##        name population
## 1 Denmark    5634437
## 2 Iceland     326340
## 3 Ireland    4593100
```

3. Which countries are not too small and not too big? BETWEEN allows range checking (range specified is inclusive of boundary values). The example below shows countries with an area of 250,000300,000 sq. km. Modify it to show the country and the area for countries with an area between 200,000 and 250,000.

```
SELECT name, area FROM world
WHERE area BETWEEN 200000 AND 250000
```

```
##                 name      area
## 1          Algeria 2381741
## 2          Belarus  207600
## 3           Belize   22966
## 4         Djibouti   23200
## 5     El Salvador   21041
## 6            Ghana  238533
## 7           Guinea  245857
## 8           Guyana  214969
## 9           Israel   20770
## 10            Laos  236800
## 11       Mauritius    2040
## 12           Nauru      21
## 13         Romania  238391
## 14    Saudi Arabia 2149690
## 15        Slovenia   20273
## 16          Uganda  241550
## 17 United Kingdom  242900
```