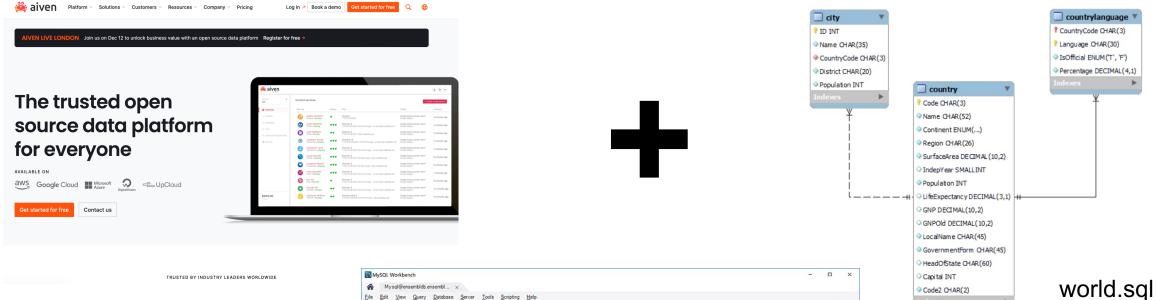
## Databases week 2

Met MySQL

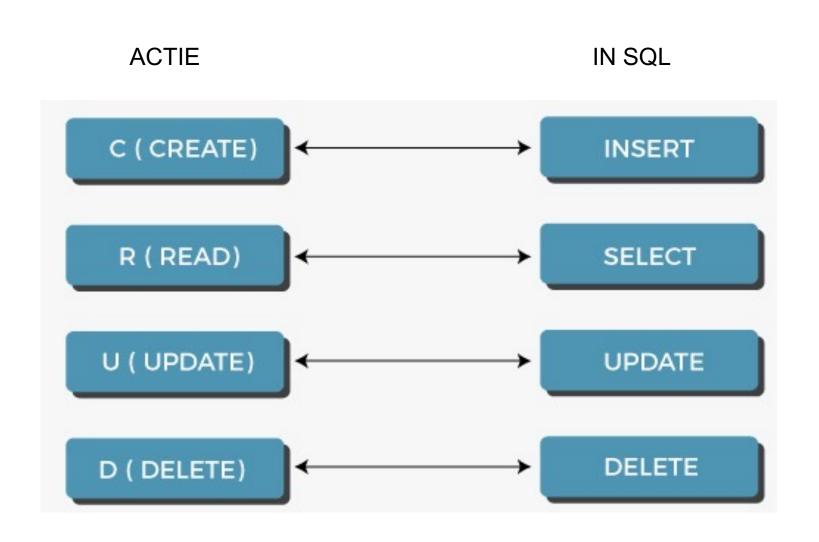


## Wat hebben we al gedaan



File Edit View Query Database Server Tools Scripting Help **6** MANAGEMENT Server Status Connection Name Client Connections Users and Privileges mysal-hhym7-025.ebi.ac.uk Status and System Variables --- 109 /instances/5306/var/mysql.sock A Data Export & Data Import/Restore MySOL Community Server (GPL) INSTANCE 🕄 Compiled For linux-glibc2.5 (x86\_64) Startup / Shutdown Configuration File: A Server Logs Running Since: Thu Apr 26 07:14:08 2018 (216 days 12:32) 32.26 MB/s 99.9% Ø Options File PERFORMANCE Dashboard 6 Performance Reports **Available Server Features** InnoDB Buffer Usage Performance Schema Setup 440 3.8% Performance Schema: Windows Authentication: Off Thread Pool: O n/a Password Validation: SCHEMAS Memcached Plugin: O n/a Audit Log: O n/a Q Filter objects Semisync Replication Plugin: 😑 n/a ▶ 🗏 acanthochromis\_polyacanth 🔿 Firewall Trace: ⊕ n/a Server Directories

## CRUD



Haal uit de database alle steden uit Spanje (CountryCode : ESP) op met meer dan 350000 inwoners (Het zijn 9 steden). Welke SQL-statement heb je hiervoor gebruikt?

**SELECT \* FROM city WHERE CountryCode = 'ESP' AND Population >= 350000** 

Vervang in de database het staatshoofd van Nederland van Beatrix naar Willem Alexander. Welke SQL-statement heb je hiervoor gebruikt?

**UPDATE** country SET HeadOfState = 'Willem Alexander' WHERE Code = 'NLD'

Maak een SQL-statement dat teruggeeft hoeveel inwoners alle Belgische steden in de database (CountryCode : BEL) gezamenlijk hebben? Het antwoord is 1609322.

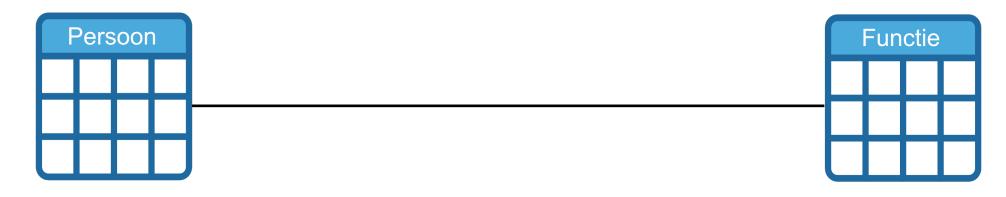
SELECT sum(Population) FROM city WHERE CountryCode = 'BEL'

Maak een SQL-statement dat teruggeeft hoeveel mensen er in Argentinië (ARG) wonen en wat hun gemiddelde levensverwachting is. Het antwoord is 37.032.000 mensen en een gemiddelde levensverwachting van 75,1 jaar.

SELECT sum(Population), AVG(LifeExpectancy) FROM country WHERE Code = 'ARG'

## JOINS

## SLEUTELS



#	Voornaam	Achternaam	FunctieID
1	Adnan	Kazan	2
2	Jeroen	Koomen	1
3	Pieter	Leek	2
4	Hans	Kazan	3

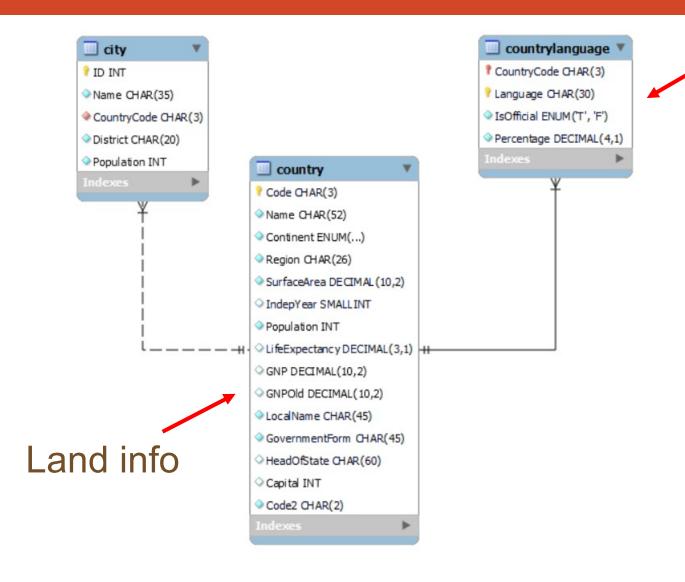
FunctieID	Naam	
1	Manager	
2	Docent	
3	Goochelaar	

Primary key

Primary key

Foreign key

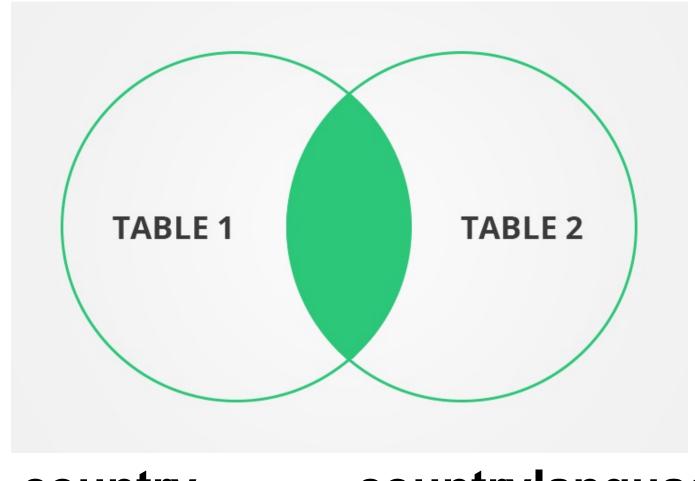
#### Voorbeeld



Ik wil weten van alle landen in West Europa (Western Europe) welke taal ze spreken?

Taal

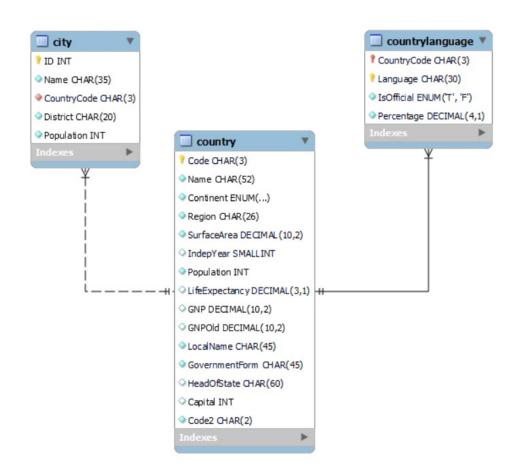
## **INNER JOIN**



country

countrylanguage

#### **INNER JOIN**



SELECT

\*

**FROM** 

country

**INNER JOIN** 

countrylanguage

ON

country.Code = countrylanguage.CountryCode

WHERE

country.Region = 'Western Europe'

## **INNER JOIN**



Products	Price
Kiwis	\$6
Onions	\$3
Tomatoes	\$7

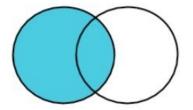
#### TABLE 2

Products	Quantity
Kiwis	10
Onions	6
Broccoli	5

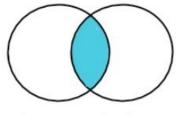
Products	Price	Quantity
Kiwis	\$6	10
Onions	\$3	6

**INNER JOIN** 

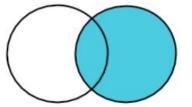
# SQL Joins



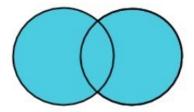
**Left Join** 



**Inner Join** 

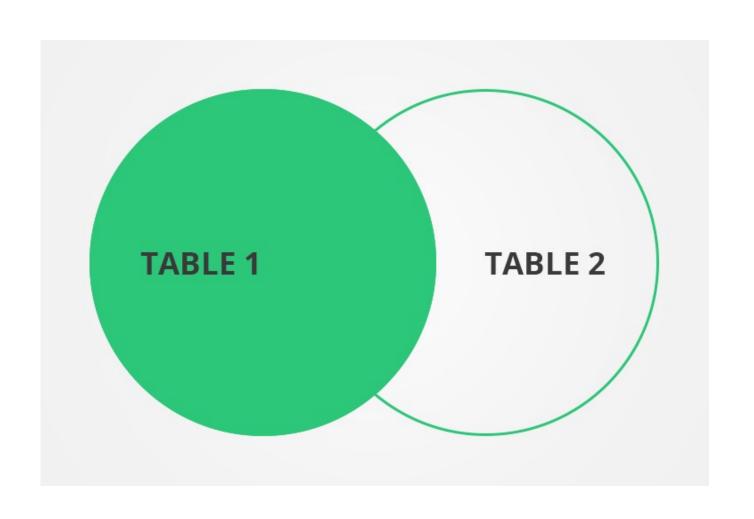


**Right Join** 

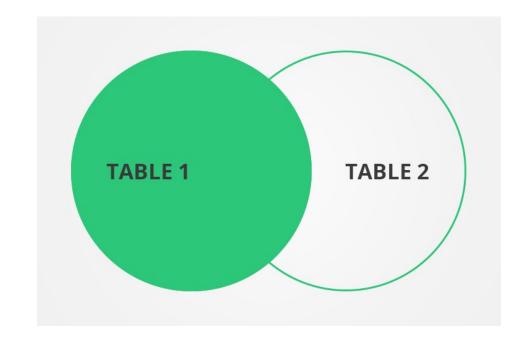


Full Outer Join

## LEFT JOIN



#### LEFT JOIN



LEFT = WELKE TABEL ER LINKS STAAT = DE EERSTE TABELNAAM (na FROM) IN DE QUERY

SELECT \* FROM TABLE 1 LEFT JOIN TABLE 2 ON ......

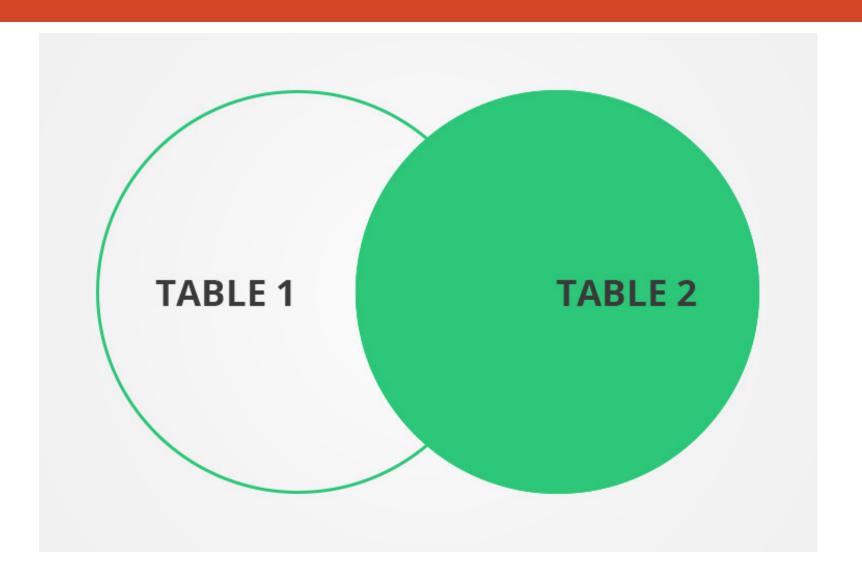
Tweede tabelnaam

#### LEFT JOIN



SELECT Table1.\*, Table2.Quantity FROM Table1 LEFT JOIN Table2 ON Table1.Product = Table2.Product

## RIGHT JOIN



#### **RIGHT JOIN**



SELECT Table1.\*,
Table2.Quantity FROM
Table1 RIGHT JOIN
Table2 ON
Table1.Product =
Table2.Product

## AAN DE SLAG

Opdracht 2 Inleveren via Teams