# Consultas SQL: Proyectos en BigQuery

## Introducción

Este documento recopila algunas de las consultas SQL que he desarrollado durante mis estudios y experiencia.  
Incluye algunos ejemplos avanzados como JOIN, subconsultas, manipulación de datos, etc.

## 1. Análisis Descriptivo

Estas consultas analizan datos básicos.

### Consulta: Fechas mínimas y máximas

SELECT MIN(Date) AS min\_date, MAX(Date) AS max\_date  
FROM sales.sales\_info;

### Consulta: Longitud mínima y máxima de un vehículo

SELECT MIN(length) AS min\_length, MAX(length) AS max\_length  
FROM positive-notch-438915-r1.cars.car\_info;

### Consulta: Promedio de temperatura en junio de 2020

SELECT AVG(temperature)  
FROM positive-notch-438915-r1.demos.nyc\_weather  
WHERE date BETWEEN '2020-06-01' AND '2020-06-30';

## 2. Filtrado y Agregación

Consultas para filtrar registros y agrupar datos con funciones agregadas.

### Consulta: Filtrar hospitalizaciones por industria

SELECT products\_industry\_name, COUNT(report\_number) AS count\_hospitalizations  
FROM bigquery-public-data.fda\_food.food\_events  
WHERE products\_industry\_name IN (  
 SELECT products\_industry\_name  
 FROM bigquery-public-data.fda\_food.food\_events  
 GROUP BY products\_industry\_name  
 ORDER BY COUNT(report\_number) DESC LIMIT 10)  
AND outcomes LIKE '%Hospitalization%'  
GROUP BY products\_industry\_name  
ORDER BY count\_hospitalizations DESC;

### Consulta: Reportes por tipo de industria

SELECT products\_industry\_name, COUNT(report\_number) AS count\_reports  
FROM bigquery-public-data.fda\_food.food\_events  
GROUP BY products\_industry\_name  
ORDER BY count\_reports DESC  
LIMIT 10;

## 3. Operaciones con JOIN

Consultas avanzadas que combinan datos de múltiples tablas usando diferentes tipos de JOIN.

### Consulta: Información de equipos y sus mascotes

SELECT seasons.market AS university, seasons.name AS team\_name,  
 mascots.mascot AS team\_mascot, AVG(seasons.wins) AS avg\_wins,  
 AVG(seasons.losses) AS avg\_losses, AVG(seasons.ties) AS avg\_ties  
FROM bigquery-public-data.ncaa\_basketball.mbb\_historical\_teams\_seasons AS seasons  
INNER JOIN bigquery-public-data.ncaa\_basketball.mascots AS mascots  
ON seasons.team\_id = mascots.id  
WHERE seasons.season BETWEEN 1990 AND 1999  
 AND seasons.division = 1  
GROUP BY 1, 2, 3  
ORDER BY avg\_wins DESC, university;

### Consulta: Estaciones con duración promedio más alta

SELECT subquery.start\_station\_id, subquery.avg\_duration  
FROM (  
 SELECT start\_station\_id, AVG(tripduration) AS avg\_duration  
 FROM bigquery-public-data.new\_york\_citibike.citibike\_trips  
 GROUP BY start\_station\_id) AS subquery  
ORDER BY avg\_duration DESC;

## 4. Manipulación de Datos

Consultas que actualizan, corrigen o eliminan registros en las tablas.

### Consulta: Actualizar valores mal escritos

UPDATE positive-notch-438915-r1.cars.car\_info  
SET num\_of\_cylinders = "two"  
WHERE num\_of\_cylinders = "tow";

### Consulta: Eliminar registros con compresión incorrecta

DELETE FROM positive-notch-438915-r1.cars.car\_info  
WHERE compression\_ratio = 70;

### Consulta: Corregir número de puertas

UPDATE positive-notch-438915-r1.cars.car\_info  
SET num\_of\_doors = "four"  
WHERE make = "dodge" AND fuel\_type = "gas" AND body\_style = "sedan";

## 5. Consultas Avanzadas

Consultas que emplean subconsultas, funciones avanzadas y cálculos complejos.

### Consulta: Duración promedio de viajes y su diferencia

SELECT starttime, start\_station\_id, tripduration,  
 ROUND(tripduration - (SELECT AVG(tripduration)  
 FROM bigquery-public-data.new\_york\_citibike.citibike\_trips  
 WHERE start\_station\_id = outer\_trips.start\_station\_id), 2) AS difference\_from\_avg  
FROM bigquery-public-data.new\_york\_citibike.citibike\_trips AS outer\_trips  
ORDER BY difference\_from\_avg DESC  
LIMIT 25;