SQL QUERY

LINK-

<https://console.cloud.google.com/bigquery?sq=383821250424:b2b2899749714a30883f89a137ffc5bc>

-- Retrieve all data

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales` LIMIT 1000;

-- Retrieve name, rank and year columns from table

SELECT name, year, rank FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales` LIMIT 100;

-- Rename columns using AS (ALIAS)

SELECT Name AS Game\_Name, Rank AS Movie\_Rank, Year AS Year\_Released FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales` LIMIT 100;

-- Retrieve Distinct values in a column from the table

SELECT DISTINCT Year FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`;

SELECT DISTINCT Genre FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`;

SELECT DISTINCT Publisher FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`;

-- Retrieve data using a condition with WHERE, then fuctions such as =, >, <, >=, <=

-- Retrieve games released only in 2005

SELECT \*

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Year = 2005;

-- Retrieve where genre is Action

SELECT \*

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Genre = 'Action';

-- Retrieve where year is greater than or equal to 2010

SELECT \*

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE year >= 2010;

-- Retrieve where EU\_sales is greater than 10

SELECT \*

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE EU\_Sales > 10;

-- Retrieve Where games is not sports

SELECT \*

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Genre != 'Sports';

-- Retrieve games where NA sales is less than 5 million

SELECT \*

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE NA\_Sales < 5;

--Using AND to retrieve data with more than one conditions to fulfil

-- Retrieve games where publisher is Nintendo and genre of Sports

SELECT \*

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Publisher = 'Nintendo' and Genre = 'Sports';

-- Retrieve games where NA\_sales is greater than 15 and EU\_sales is greater than 15

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE NA\_Sales > 15 AND EU\_Sales > 15;

-- Retrieve games where platform is WII and and sales are greater than 10 million in EU

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Platform = 'Wii' AND EU\_Sales > 10

-- Retrieve games where genre is not misc and year is greater than 2010 and EU sales is greater than 5

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Genre != 'Misc' AND Year > 2010 AND EU\_Sales > 5;

-- Retrieve games where EU sales & other sales are more than 2 and publisher is Nintendo

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE EU\_Sales > 2 AND Other\_Sales > 2 AND Publisher = 'Nintendo';

-- Retrieve using or

-- Retrieve games where na sales or eu sales are greater than 15

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE EU\_Sales > 15 OR NA\_Sales > 15;

-- Retrieve games where platform is Wii or sales are greater than 10 million in EU

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Platform = 'Wii' OR EU\_Sales > 10;

-- Retrieve games where genre is not Misc and year is greater than 2010 OR EU sales is greater than 5

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Genre != 'Misc' AND (Year > 2010 OR EU\_Sales > 5);

-- Retrieve games where EU sales OR other sales are greater than 2 and Publisher is Nintendo

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE (EU\_Sales > 2 OR Other\_Sales > 2) AND Publisher = 'Nintendo';

-- Using NOT command also works like !=

-- Retrieve games where publisher is not nintendo

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE NOT Publisher = 'Nintendo';

-- Retrieve games where genre is not racing and publisher is nintendo

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE NOT Genre = 'Racing' AND Publisher = 'Nintendo';

-- Retrieve games where year is not 2010

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE NOT Year = 2010

-- Retrieve games where publisher is not nintendo and sales in EU are greater tha 5

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE NOT Publisher = 'Nintendo' AND EU\_sales > 5;

-- Retrieve games where publisher is not nintendo and sales in EU are greater than 5 or sales in JP are greater than 1

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE NOT Publisher = 'Nintendo' AND (EU\_Sales > 5 OR JP\_Sales > 1);

-- Using BETWEEN command

-- Between gives results between conditions and incase of strings BETWEEN picks results between conditions alphabetically.

-- Retrieve games where year is between 2010 and 2013

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Year BETWEEN 2010 AND 2013

-- Retrieve games where EU sales is between 5 and 10

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE EU\_Sales BETWEEN 5 AND 10;

-- Retrieve games where EU sales is between 10 and 20

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE EU\_Sales BETWEEN 10 AND 20;

-- Retrieve games where genre is between Misc and Sports

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Genre BETWEEN 'Misc' AND 'Sports';

-- Retrieve games between A and D

SELECT \* FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Name BETWEEN 'A' AND 'D';

-- SQL LIKE Operators

-- The position of the % matters what the result will bring

-- a% will retrieve data with a in front

-- %a will retrieve data with a behind

-- %a% will retrieve data with a in any position

-- 'a%o' will retrieve data that starts with a and ends with o

-- '\_r%' will retrieve data that has r in the second position

-- 'a\_\_%' will retrieve data that starts with a and are at least 3 character in length

SELECT \*

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Platform LIKE 'PS%';

--ARITHMEIC IN SQL

-- Find total sales across all regions

SELECT \*, eu\_sales + Na\_sales + jp\_sales + Other\_sales AS Total\_sales

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE EU\_Sales + NA\_Sales + JP\_Sales + Other\_Sales IS NOT NULL

-- Find the percentages of total sales in each region

SELECT \*,

ROUND (NA\_Sales/ (EU\_Sales + NA\_Sales + JP\_Sales + Other\_Sales) \* 100) AS NA\_proportion,

ROUND (EU\_Sales/ (EU\_Sales + NA\_Sales + JP\_Sales + Other\_Sales) \* 100) AS EU\_proportion,

ROUND (JP\_Sales/ (EU\_Sales + NA\_Sales + JP\_Sales + Other\_Sales) \* 100) AS JP\_proportion,

ROUND (Other\_Sales/ (EU\_Sales+ NA\_Sales+ JP\_Sales + Other\_Sales) \* 100) AS Other\_proportion

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE NA\_Sales != 0 AND EU\_Sales != 0 AND JP\_Sales != 0 AND Other\_Sales != 0;

-- Find the total sales across all region where region is 2010

SELECT \*, EU\_Sales + NA\_Sales + JP\_Sales + Other\_Sales AS Total\_sales\_2010

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Year = 2010 AND EU\_Sales + NA\_Sales + JP\_Sales + Other\_Sales IS NOT NULL;

-- ORDER BY is used tto order in asc or desc order

-- find the total sales across all region where year is 2010 order by genre in ascending order

SELECT \*, EU\_Sales + NA\_Sales + JP\_Sales + Other\_Sales AS Total\_Sales\_2010

from `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Year = 2010 AND EU\_Sales + NA\_Sales + JP\_Sales + Other\_Sales IS NOT NULL

ORDER BY Genre asc;

-- Group by

--- Aggregate AVG, COUNT, SUM, MAX, MIN

-- Find the sum of sales for each region use ROUND to get to 2 decimal places

SELECT ROUND (SUM(NA\_Sales),2) AS Total\_sales\_NA,

ROUND(SUM(EU\_Sales),2) AS Total\_Sales\_EU,

ROUND (SUM(JP\_Sales),2) AS Total\_Sales\_JP,

ROUND (SUM (Other\_Sales),2) AS Total\_Sales\_Other

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

-- DO FOR AVG, MIN, MAX

-- AVERAGE

SELECT ROUND (AVG(NA\_Sales),2) AS AVG\_sales\_NA,

ROUND(AVG(EU\_Sales),2) AS AVG\_Sales\_EU,

ROUND (AVG(JP\_Sales),2) AS AVG\_Sales\_JP,

ROUND (AVG(Other\_Sales),2) AS AVG\_Sales\_Other

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`;

-- MIN

SELECT ROUND (SUM(NA\_Sales),2) AS MIN\_sales\_NA,

ROUND(MIN(EU\_Sales),2) AS MIN\_Sales\_EU,

ROUND (MIN(JP\_Sales),2) AS MIN\_Sales\_JP,

ROUND (MIN (Other\_Sales),2) AS MIN\_Sales\_Other

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`;

--MAX

SELECT ROUND (MAX(NA\_Sales),2) AS MAX\_sales\_NA,

ROUND(MAX(EU\_Sales),2) AS MAX\_Sales\_EU,

ROUND (MAX(JP\_Sales),2) AS MAX\_Sales\_JP,

ROUND (MAX(Other\_Sales),2) AS MAX\_Sales\_Other

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`;

-- COUNT AND COUNT DISTINCT

SELECT COUNT (Name)

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

SELECT COUNT (DISTINCT Name)

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

-- GROUP BY

-- Find the average EU sales per Publisher

SELECT Publisher, ROUND(AVG(EU\_Sales),2)

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

GROUP BY Publisher;

-- Find the average sales and total sales across all region by genre, order by eu sales desc

SELECT Genre, AVG(EU\_Sales) AS AVGEUSALES, SUM(EU\_Sales) AS SUMEUSALES

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

GROUP BY Genre

ORDER BY SUM(EU\_Sales) DESC;

-- Find the average sales and & total sales across EU when the genre is sports, racing and action, order by sales desc

SELECT Genre, AVG(EU\_Sales) AS AvgSales, SUM(EU\_Sales) AS SUMEUSALES

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Genre IN ('Sports', 'Racing', 'Action')

GROUP BY Genre

ORDER BY SumSales Desc;

--Find the average sales across eu region by Genre and year, order by sales desc

SELECT Genre, Year, AVG(EU\_Sales) AS AvgSales

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

GROUP BY Year, Genre

ORDER BY AvgSales DESC;

-- Find the avg sales across all regions for games containing Wii by genre

SELECT Genre, AVG(EU\_Sales) AS AvgEUSales, AVG(JP\_Sales) AS AvgJP\_Sales, AVG(NA\_Sales) AS AvgNA\_Sales, AVG(Other\_Sales) AS AvgOtherSales

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE name LIKE '%Wii%'

GROUP BY Genre

ORDER BY 2;

-- Find the sum sales across all regions for years between 2008 and 2014 by platform

SELECT Platform,

SUM(NA\_Sales)

SUM(EU\_Sales)

SUM(JP\_Sales)

SUM(Other\_Sales)

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE year BETWEEN 2010 AND 2014

GROUP BY Platform

ORDER BY Platform;

`

-- -HAVING is used like WHERE but with arithemetic condition e.g < 5, > 2 ETC

-- display the number of genre where the total number of games is greater than 100

SELECT Genre, COUNT(Name) AS TotalNoGames

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

GROUP BY Genre

HAVING COUNT(Name) > 1000

-- Find the games where average EU SALES BY GENRE IS > 0.15

SELECT Genre, ROUND(AVG(EU\_Sales),2)

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

GROUP BY Genre

HAVING AVG(EU\_Sales) > 0.15;

--Find the games where total EU SALES BY PLATFORM IS GREATER THAN 10, then Order by eusales in ascending order

SELECT PLATFORM, ROUND(SUM(EU\_Sales),2)

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

GROUP BY Platform

HAVING SUM(EU\_Sales) > 10

ORDER BY 2 ASC;

--Find the games where total EU SALES BY PLATFORM IS GREATER THAN 10 for platform WII, PS3 AND PS4, then Order by eusales in ascending order

SELECT PLATFORM, ROUND(SUM(EU\_Sales),2)

FROM `braided-tracker-378420.Niyo\_bootcamp.Console\_sales`

WHERE Platform IN ('Wii', 'PS3', 'PS4')

GROUP BY Platform

HAVING SUM(EU\_Sales) > 10

ORDER BY 2 ASC;