CREATE DATABASE iNeuron\_SQL\_Master\_Projects;

USE iNeuron\_SQL\_Master\_Projects;

------------------------------Creating & Loading Tables For Task-1 Of Master Project------------------------------

CREATE OR REPLACE TABLE "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT"(

ACCIDENT\_INDEX VARCHAR(20),

ACCIDENT\_SEVERITY INTEGER

);

SELECT \* FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT";

CREATE OR REPLACE TABLE "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES"(

ACCIDENT\_INDEX VARCHAR(17),

VEHICLE\_TYPE VARCHAR(65)

);

SELECT \* FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES";

CREATE OR REPLACE TABLE "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES"(

VEHICLE\_CODE INTEGER,

VEHICLE\_LABEL VARCHAR(100)

);

SELECT \* FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES";

-------------------------------------------------ANALYSING ROAD SAFETY IN THE UK-------------------------------------------------------------------------------------------------------------------------------------------------------------------------

------------------------EVALUATE THE MEDIAN SEVERITY VALUE OF ACCIDENTS CAUSED BY VARIOUS MOTORCYCLES-----------------------------------------------------------------------------------------------------------------

---------Method-1-------------

SELECT MEDIAN(ACCIDENT\_SEVERITY) FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT";

---------Method-2-------------

WITH MED AS(

SELECT a.ACCIDENT\_SEVERITY,v.VEHICLE\_TYPE,vt.VEHICLE\_LABEL,ROW\_NUMBER() OVER(PARTITION BY VEHICLE\_LABEL ORDER BY ACCIDENT\_SEVERITY) AS RN,

COUNT(1)OVER(PARTITION BY VEHICLE\_LABEL) AS CT

FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT" a

INNER JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES" v ON a.ACCIDENT\_INDEX=v.ACCIDENT\_INDEX

INNER JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES" vt ON v.VEHICLE\_TYPE=vt.VEHICLE\_CODE

WHERE VEHICLE\_LABEL like '%otorcyc%')

SELECT VEHICLE\_LABEL,ROUND(AVG(ACCIDENT\_SEVERITY),0) as MEDIAN\_FINAL

FROM MED

WHERE RN = CEIL(CT/2) OR RN IN (CT/2,(CT/2)+1)

GROUP BY 1;

--------------------EVALUATE ACCIDENT SEVERITY AND TOTAL ACCIDENTS PER VEHICLE TYPE------------------------------------------------------------------------------------------------------------------------------------------------------

---------Method-1-------------

SELECT VT.VEHICLE\_LABEL AS VEHICLE\_TYPE, AVG(A.ACCIDENT\_SEVERITY) AS AVG\_ACCIDENT\_SEVERITY, COUNT(VT.VEHICLE\_LABEL) AS ACCIDENT\_NUMBERS

FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT" A

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES" V ON A.ACCIDENT\_INDEX = V.ACCIDENT\_INDEX

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES" VT ON V.VEHICLE\_TYPE = VT.VEHICLE\_CODE

GROUP BY 1

ORDER BY 2,3;

---------Method-2-------------

SELECT A.ACCIDENT\_INDEX, A.ACCIDENT\_SEVERITY, V.VEHICLE\_TYPE, VT.VEHICLE\_LABEL

FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT" A

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES" V ON A.ACCIDENT\_INDEX = V.ACCIDENT\_INDEX

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES" VT ON V.VEHICLE\_TYPE = VT.VEHICLE\_CODE

ORDER BY 4,2;

SELECT COUNT(ACCIDENT\_INDEX) AS TOTAL\_ACCIDENTS, ACCIDENT\_SEVERITY, VEHICLE\_TYPE, VEHICLE\_LABEL FROM(

SELECT A.ACCIDENT\_INDEX, A.ACCIDENT\_SEVERITY, V.VEHICLE\_TYPE, VT.VEHICLE\_LABEL

FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT" A

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES" V ON A.ACCIDENT\_INDEX = V.ACCIDENT\_INDEX

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES" VT ON V.VEHICLE\_TYPE = VT.VEHICLE\_CODE)

GROUP BY 2,3,4

ORDER BY 4,2;

-------------------------------------------THE AVERAGE SEVERITY BY VEHICLE TYPE--------------------------------------------------------------------------------------------------------------------------------------------------------------------------

---------Method-1-------------

SELECT VT.VEHICLE\_LABEL AS VEHICLE\_TYPE, AVG(A.ACCIDENT\_SEVERITY) AS AVERAGE\_SEVERITY

FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT" A

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES" V ON A.ACCIDENT\_INDEX = V.ACCIDENT\_INDEX

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES" VT ON V.VEHICLE\_TYPE = VT.VEHICLE\_CODE

GROUP BY 1

ORDER BY 2;

---------Method-2-------------

SELECT VT.VEHICLE\_LABEL AS VEHICLE\_TYPE, ROUND(AVG(A.ACCIDENT\_SEVERITY),3) AS AVERAGE\_SEVERITY

FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT" A

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES" V ON A.ACCIDENT\_INDEX = V.ACCIDENT\_INDEX

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES" VT ON V.VEHICLE\_TYPE = VT.VEHICLE\_CODE

GROUP BY 1

ORDER BY 2;

-------------------------THE AVERAGE SEVERITY AND TOTAL ACCIDENTS BY MOTORCYCLE------------------------------------------------------------------------------------------------------------------------------------------------------------

SELECT ROUND(AVG(A.ACCIDENT\_SEVERITY),2) AS AVERAGE\_SEVERITY,COUNT(A.ACCIDENT\_INDEX) AS TOTAL\_ACCIDENTS

FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."ACCIDENT" A

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLES" V ON A.ACCIDENT\_INDEX = V.ACCIDENT\_INDEX

JOIN "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."VEHICLE\_TYPES" VT ON V.VEHICLE\_TYPE = VT.VEHICLE\_CODE

WHERE VT.VEHICLE\_LABEL LIKE '%otorcyc%';

--IF YOU WANT AVERAGE\_SEVERITY AND TOTAL\_ACCIDENTS BASED ON VARIOUS TYPE OF MOTORCYCLES THEN

--GROUP BY VT.VEHICLE\_LABEL

--ORDER BY 2;

--\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*END\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*-

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----------------------------------Master Project Task-2 Analysing the World Population----------------------------

CREATE OR REPLACE TABLE "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."WORLD\_POPULATION\_DATA"A(

COUNTRY VARCHAR2(100),

AREA DECIMAL(10,2),

BIRTH\_RATE DECIMAL(5,2),

DEATH\_RATE DECIMAL(15,10),

INFANT\_MORTALITY\_RATE DECIMAL(10,5),

INTERNET\_USERS INT,

LIFE\_EXP\_AT\_BIRTH DECIMAL(7,5),

MATERNAL\_MORTALITY\_RATE DECIMAL(8,4),

NET\_MIGRATION\_RATE DECIMAL(9,5),

POPULATION BIGINT,

POPULATION\_GROWTH\_RATE DECIMAL(10,8)

);

SELECT \* FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."WORLD\_POPULATION\_DATA";

---------------------------------------COUNTRY HAS THE HIGHEST POPULATION---------------------------------------

--------------------------------------------------------------------------------------------------------------------------------------

SELECT COUNTRY FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."WORLD\_POPULATION\_DATA"

WHERE POPULATION = (SELECT MAX(POPULATION) FROM WORLD\_POPULATION\_DATA);

-------------------------------------COUNTRY HAS THE LEAST NUMBER OF PEOPLE-----------------------------------

--------------------------------------------------------------------------------------------------------------------------------------

SELECT COUNTRY FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."WORLD\_POPULATION\_DATA"

WHERE POPULATION = (SELECT MIN(POPULATION) FROM WORLD\_POPULATION\_DATA);

--------------------------COUNTRY IS WITNESSING THE HIGHEST POPULATION GROWTH--------------------------------------------------------------------------------------------------------------------------------------------------------------

SELECT COUNTRY FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."WORLD\_POPULATION\_DATA"

WHERE POPULATION\_GROWTH\_RATE = (SELECT MAX(POPULATION\_GROWTH\_RATE)

FROM WORLD\_POPULATION\_DATA);

---------------------COUNTRY HAS AN EXTRAORDINARY NUMBER FOR THE POPULATION------------------------------------------------------------------------------------------------------------------------------------------------------------

SELECT COUNTRY FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."WORLD\_POPULATION\_DATA"

ORDER BY POPULATION DESC LIMIT 10;

-------------------------------THE MOST DENSELY POPULATED COUNTRY IN THE WORLD---------------------------------------------------------------------------------------------------------------------------------------------------------------

SELECT COUNTRY FROM "INEURON\_SQL\_MASTER\_PROJECTS"."PUBLIC"."WORLD\_POPULATION\_DATA"

WHERE DIV0(POPULATION,AREA)=(SELECT DIV0(POPULATION,AREA) AS DENSITY

FROM WORLD\_POPULATION\_DATA

ORDER BY DENSITY DESC LIMIT 1);

--\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*END\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*-