CREATE DATABASE iNeuron\_sql\_projects;

USE iNeuron\_sql\_projects;

----TASK -1 -----------------------------------------------------------------------------------------------------------------------

----------Creating Shopping\_History Table---------------------------

CREATE OR REPLACE TABLE shopping\_history (

product VARCHAR(50) NOT NULL,

quantity INTEGER NOT NULL,

unit\_price INTEGER NOT NULL

);

SELECT \* FROM shopping\_history;

----------Inserting Data into Shopping\_History Table------------------

INSERT INTO shopping\_history VALUES('milk',6,46),

('bread',3,12),

('egg',4,5),

('butter',2,15),

('mayonise',1,65),

('tomato',2,6),

('cucumber',3,9),

('mayonise',3,78),

('milk',6,52),

('butter',3,21),

('cucumber',5,12),

('bread',4,25),

('tomato',5,7),

('egg',9,8);

-------------Veiw the Dataset Loaded-------------------------------------

SELECT \* FROM shopping\_history;

-------------QUERY for Total amount spent on each item-------------------

SELECT DISTINCT(product),

CASE WHEN product IN ('bread', 'milk', 'butter', 'mayonise', 'tomato', 'cucumber', 'egg') THEN SUM(quantity \* unit\_price)

END AS total\_price

FROM shopping\_history

GROUP BY product

ORDER BY product DESC ;

----TASK-2------------------------------------------------------------------------------------------------------------------------

------Creating Tables of Phone & Calls For Given-1-------------------------

CREATE OR REPLACE TABLE phone(

name STRING NOT NULL UNIQUE,

phone\_number INTEGER NOT NULL UNIQUE

);

CREATE OR REPLACE TABLE calls(

id INTEGER NOT NULL,

caller INTEGER NOT NULL,

callee INTEGER NOT NULL,

duration INTEGER NOT NULL,

UNIQUE(id)

);

INSERT INTO phone VALUES('Jack', 1234),

('Lenna', 3333),

('Mark', 9999),

('Anna', 7582);

SELECT \* FROM phone;

INSERT INTO calls VALUES(25, 1234, 7582, 8),

(7, 9999, 7582, 1),

(18, 9999, 7582, 4),

(2, 7582, 3333, 3),

(3, 3333, 1234, 1),

(21, 3333,1234, 1);

SELECT \* FROM calls;

-------QUERY Tables of Phone & Calls For Given-1-------------------------

SELECT a.name AS NAME FROM phone a

JOIN calls b

ON a.phone\_number = b.caller

WHERE b.duration = ( SELECT

SUM(b.duration) AS TOTAL\_DURATION FROM calls

WHERE caller = callee

AND SUM(b.duration) >= 10 );

-------Creating Tables of Phone & Calls For Given-2-------------------------

CREATE OR REPLACE TABLE phone2(

name STRING NOT NULL UNIQUE,

phone\_number INTEGER NOT NULL UNIQUE

);

CREATE OR REPLACE TABLE calls2(

id INTEGER NOT NULL,

caller INTEGER NOT NULL,

callee INTEGER NOT NULL,

duration INTEGER NOT NULL,

UNIQUE(id)

);

------Inserting Values In Tables Created For Given-2------------------------------------

INSERT INTO phone2 VALUES('John', 6356),

('Addison', 4315),

('Kate', 8003),

('Ginny', 9831);

SELECT \* FROM phone2;

INSERT INTO calls2 VALUES(65, 8003, 9831, 7),

(100, 9831, 8003, 3),

(145, 4315, 9831, 18);

SELECT \* FROM calls2;

-------Query Tables of Phone & Calls For Given-2-------------------------

SELECT a.name AS NAME FROM phone2 a

JOIN calls2 b

ON a.phone\_number = b.caller

WHERE b.duration = ( SELECT

SUM(b.duration) AS TOTAL\_DURATION FROM calls2

WHERE caller = callee

AND SUM(b.duration) >= 10 );

----TASK -3 -------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

----------Creating Table Transaction For Given-1---------------------------

CREATE OR REPLACE TABLE TRANSACTIONS1(

amount INTEGER NOT NULL,

date DATE NOT NULL

);

------Inserting Data Into Transaction1 Table Of Given-1-----------------------------

INSERT INTO TRANSACTIONS1 VALUES(1000, 2020-01-06),

(-10, 2020-01-14),

(-75, 2020-01-20),

(-5, 2020-01-25),

(-4, 2020-01-29),

(2000, 2020-03-10),

(-75, 2020-03-12),

(-20, 2020-03-15),

(40, 2020-03-15),

(-50, 2020-03-17),

(200, 2020-10-10),

(-200, 2020-10-10);

SELECT \* FROM TRANSACTIONS1;

-------Query For Tables of Transaction -------------------------

SELECT SUM(Fin\_amount) - 5 \* SUM(Mon\_num) AS Final\_Balance

From (

SELECT SUM(Sum\_amount) AS Fin\_amount, COUNT(MONTH) AS Mon\_num

FROM (

SELECT SUM(amount) AS Sum\_amount, EXTRACT(MONTH FROM DATE) AS MONTH

FROM TRANSACTION1

WHERE amount < 0

GROUP BY EXTRACT(MONTH FROM date)

HAVING COUNT(amount) > 3

) AS Fin\_Tab

WHERE MONTH NOT IN (

SELECT MONTH

FROM (

SELECT SUM(amount) AS Sum\_amount,

EXTRACT(MONTH FROM date) AS MONTH

FROM TRANSACTION1

WHERE amount < 0

GROUP BY EXTRACT(MONTH FROM date)

HAVING SUM(amount) < -100

) AS TXN

)

) AS Finn\_Tab