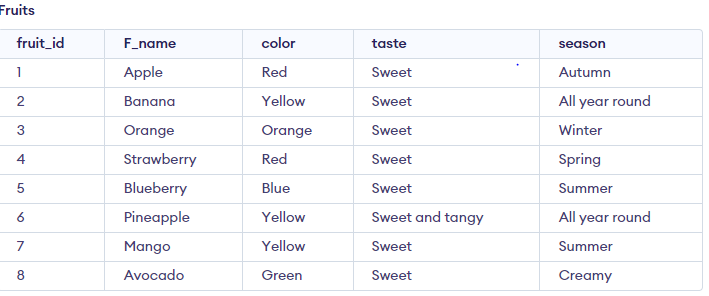
Seif Kamal

202101838

Lab 4

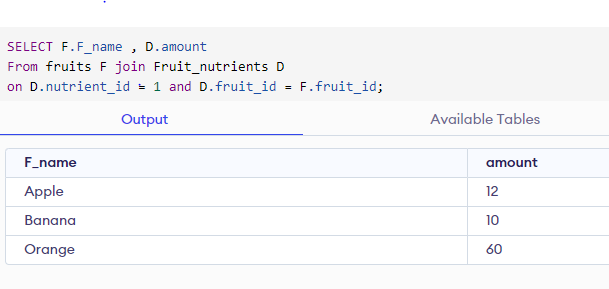
Question 1:



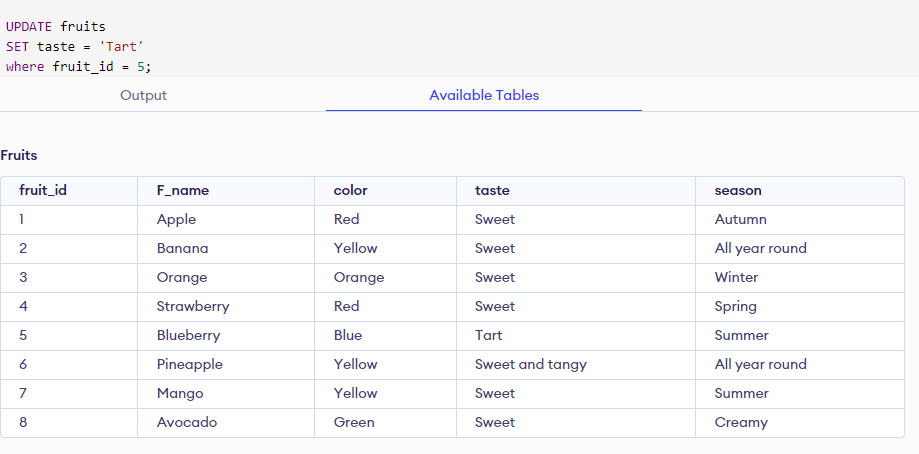
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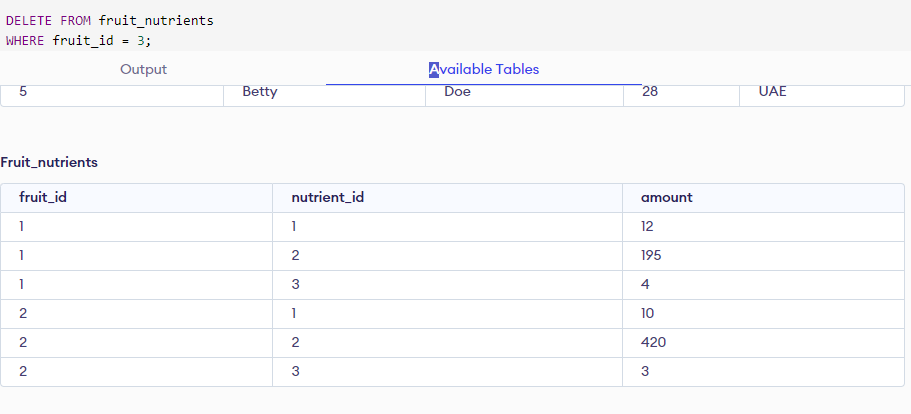
Question 3:



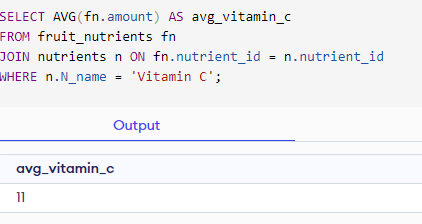
Question 4:



Question 5:



Question 6:



Question 7:



Code:

-- Online SQL Editor to Run SQL Online.

-- Use the editor to create new tables, insert data and all other SQL operations.

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/\*CREATE TABLE fruits (

fruit\_id INT PRIMARY KEY,

F\_name VARCHAR(50),

color VARCHAR(20),

taste VARCHAR(50),

season VARCHAR(20)

);

INSERT INTO fruits (fruit\_id, F\_name, color, taste, season)

VALUES (1, 'Apple', 'Red', 'Sweet', 'Autumn'),

(2, 'Banana', 'Yellow', 'Sweet', 'All year round'),

(3, 'Orange', 'Orange', 'Sweet', 'Winter'),

(4, 'Strawberry', 'Red', 'Sweet', 'Spring'),

(5, 'Blueberry', 'Blue', 'Sweet', 'Summer'),

(6, 'Pineapple', 'Yellow', 'Sweet and tangy', 'All year round'),

(7, 'Mango', 'Yellow', 'Sweet', 'Summer'),

(8, 'Avocado' , 'Green' , 'Sweet', 'Creamy');

CREATE TABLE nutrients (

nutrient\_id INT PRIMARY KEY,

N\_name VARCHAR(50),

unit VARCHAR(20)

);

INSERT INTO nutrients (nutrient\_id, N\_name, unit)

VALUES (1, 'Vitamin C', 'mg'),

(2, 'Potassium', 'mg'),

(3, 'Fiber', 'g'),

(4, 'Vitamin A', 'IU'),

(5, 'Calcium', 'mg'),

(6, 'Iron', 'mg');

CREATE TABLE fruit\_nutrients (

fruit\_id INT,

nutrient\_id INT,

amount DECIMAL(10,2),

FOREIGN KEY (fruit\_id) REFERENCES fruits(fruit\_id),

FOREIGN KEY (nutrient\_id) REFERENCES nutrients(nutrient\_id)

);

INSERT INTO fruit\_nutrients (fruit\_id, nutrient\_id, amount)

VALUES (1, 1, 12),

(1, 2, 195),

(1, 3, 4),

(2, 1, 10),

(2, 2, 420),

(2, 3, 3),

(3, 1, 60),

(3, 2, 235),

(3, 3, 4);\*/

/\*SELECT \*

FROM fruits

WHERE F\_name LIKE 'A%';\*/

/\*SELECT F.F\_name , D.amount

From fruits F join Fruit\_nutrients D

on D.nutrient\_id = 1 and D.fruit\_id = F.fruit\_id;\*/

/\*UPDATE fruits

SET taste = 'Tart'

where fruit\_id = 5;\*/

/\*DELETE FROM fruit\_nutrients

WHERE fruit\_id = 3;\*/

/\*SELECT AVG(fn.amount) AS avg\_vitamin\_c

FROM fruit\_nutrients fn

JOIN nutrients n ON fn.nutrient\_id = n.nutrient\_id

WHERE n.N\_name = 'Vitamin C';\*/

SELECT f.F\_name, f.color, f.taste, fn.amount

FROM fruits f

LEFT JOIN fruit\_nutrients fn ON f.fruit\_id = fn.fruit\_id

WHERE f.color = 'Red' AND f.taste = 'Sweet'

ORDER BY fn.amount DESC;