

Amr Ayman

202102350

fruit_id	F_name	color	taste	season
1	Apple	Red	Sweet	Autumn
8	Avocado	Green	Sweet and creamy	Fall

Fruit_Name	Amount	Taste	Vitamin_C
Apple	12	Sweet	12
Apple	195	Sweet	12
Apple	4	Sweet	12
Banana	10	Sweet	10
Banana	420	Sweet	10
Banana	3	Sweet	10
Orange	60	Sweet	60
Orange	235	Sweet	60
Orange	4	Sweet	60

Average_Vitamin_C	
11	
Fruit_Name	Amount
Apple	195
Apple	12
Apple	4

```
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
```

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```
(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');
```

```
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),
```

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```
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);
```

```
INSERT INTO fruits (fruit_id, F_name, color, taste, season)
```

```
VALUES (8, 'Avocado', 'Green', 'Sweet and creamy', 'Fall');
```

```
SELECT * FROM fruits
```

```
WHERE F_name LIKE 'A%';
```

```
SELECT
```

```
f.F_name AS Fruit_Name,
```

```
fn.amount AS Amount,
```

```
f.taste AS Taste,
```

```
(SELECT amount FROM fruit_nutrients WHERE fruit_id = f.fruit_id AND nutrient_id = 1) AS Vitamin_C
```

```
FROM
```

```
fruits f
```

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JOIN

fruit_nutrients fn ON f.fruit_id = fn.fruit_id;

UPDATE fruits

SET taste = 'Tart'

WHERE fruit_id = 5;

DELETE FROM fruit_nutrients

WHERE fruit_id = 3;

SELECT AVG(fn.amount) AS Average_Vitamin_C

FROM fruit_nutrients fn

JOIN fruits f ON fn.fruit_id = f.fruit_id

WHERE fn.nutrient_id = 1;

SELECT

f.F_name AS Fruit_Name,

fn.amount AS Amount

FROM

fruits f

JOIN

fruit_nutrients fn ON f.fruit_id = fn.fruit_id

WHERE

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

ORDER BY

fn.amount DESC;