Abdulrahman Mohamed 202102356

```
CREATE TABLE fruits (
 fruit_id INT PRIMARY KEY,
 F_name VARCHAR(50),
 color VARCHAR(20),
 taste VARCHAR(50),
 season VARCHAR(20)
);
select * from fruits;
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');

 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');
```

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```
select *from nutrients;

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 fruit_nutrients;

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,
```

```
    fn.amount,
    f.taste
FROM
    fruits f
JOIN
    fruit_nutrients fn ON f.fruit_id = fn.fruit_id
JOIN
    nutrients n ON fn.nutrient_id = n.nutrient_id
WHERE
    n.N_name = 'Vitamin C';

UPDATE fruits
SET taste = 'Tart'
WHERE fruit_id = 5;

SELECT AVG(fn.amount) AS average_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,
    fn.amount,
    f.taste
FROM
    fruits f
JOIN
    fruit_nutrients fn ON f.fruit_id = fn.fruit_id
JOIN
```

```
    nutrients n ON fn.nutrient_id = n.nutrient_id
WHERE
    f.color = 'Red'
    AND f.taste = 'Sweet'
ORDER BY
    fn.amount DESC;
```

Fruit_nutrients

fruit_id	nutrient_id	amount
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

Fruits

fruit_id	F_name	color	taste	season
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	Tart	Summer
6	Pineapple	Yellow	Sweet and tangy	All year round
7	Mango	Yellow	Sweet	Summer
8	Avocado	Green	Sweet and creamy	Fall

Nutrients

nutrient_id	N_name	unit
1	Vitamin C	mg
2	Potassium	mg
3	Fiber	g
4	Vitamin A	IU
5	Calcium	mg
6	Iron	mg

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nutrient_id	N_name	unit
1	Vitamin C	mg
2	Potassium	mg
3	Fiber	g
4	Vitamin A	IU
5	Calcium	mg
6	Iron	mg

fruit_id	nutrient_id	amount
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

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

F_name	amount	taste
Apple	12	Sweet
Banana	10	Sweet
Orange	60	Sweet

average_vitamin_C
27.333333333333332

F_name	amount	taste
Apple	195	Sweet
Apple	12	Sweet
Apple	4	Sweet

Github link:

https://github.com/abdulrahman862/Lab4