

CPSC 304 Project Cover Page

Milestone #: 4

Date: 03/30 2024

Group Number: 53

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

A brief project description:

The aim of the programme is to create a database for food searches and health issues that can be used to retrieve whether food ingredients from different sources are healthy or not, and also detect some nutrients in the food. The research area of the project is food science, especially food health and food safety as it relates to humans. The programme here identifies which nutrients are present in this food and which food services can offer it. In this case, this database can then be used to prove the nutritional value of the food on the menu and to suggest some specific requirements for the food that will be consumed, such as the recommendations of a restaurant or grocery shop.

As of what have been accomplished so far for the project, we have only implemented the GUI and functionality of four out of eighteen tables with a home page to fulfill the project requirement. After the database being initialized, in the home page of the project, users can choose which table they want to manipulate on, the user then will be navigated to the table they choose. Besides, users can search for food product information, search food with most nutrients, find out the Food Product that can Cause more than a Certain Number of Issues, and Find out the Maximum Average of the Amount of Nutrient Served by a Food Service in the home page as well. In Country, users can insert, update population, delete all the tuples that satisfy any of the conditions they enter, count, and display the tuples in the country table. In the FoodServiceFrom table, users can select the food service based on the conditions (name, time, location, country), and also find the projection of certain columns they choose. In the FoodProductSell table, users can view all the food products served by food services and find all the food services that serve the food product they want. Lastly, in Purchase, users can find all the purchases made by the food services and track the food services who purchased all the given produce.

Schema remains the same, we basically constructed our project based on the previous schema. Because our previous schema design stayed with our final scheme and vision, we didn't encounter too much difficulty in designing it.

Schema

FoodProductSell(FPName: char(20), Description: varchar, Recipe: varchar, **FSID**: int)

PK: (FPName)

FK: FSID references FoodServiceFrom

FoodServicesFrom(FSID: int, FSName: char(20), FSAddress: varchar, hours: varchar, **CountryName**: char(20))

PK: (FSID)

CK: (FSName,FSAddress)

FK: CountryName references Country

Not Null: CountryName

Country(CountryName: char(20), Population: real, Continent: char(20))

PK: (CountryName)

Not Null: Continent

GroceryStore(**FSID**: int, GSLicense: int, Departments: int)

PK: (FSID)

CK: (GSLicenseID)

FK: FSID references FoodServicesFrom

Restaurant(**FSID**: int, RLicense: int, Tables: int)

PK: (FSID)

CK: (RLicenseID)

FK: FSID references FoodServicesFrom

ContainIngredient(ProduceID: int, IName: char(20), Origin: char(20), MFGDate: date, Expiration: date, **FPName**: char(20))

PK: (ProduceID)

CK: (IName, Origin, MFG)

FK: FPName references FoodProductSell

Purchase(**ProduceID**: int, **FSID**: int, OrderID: int)

PK: (ProduceID)

CK: (OrderID)

FK: ProduceID references ContainIngredient

FSID references FoodServicesFrom

IncludeNutrition(**ProduceID**: int, ChemName: varchar, Benefit: varchar, Amount: int)

PK: (ProduceID, CName)

FK: ProduceID references ContainIngredient (on delete cascade)

AgriculturalDisease(ADName: char(20), Type: char(20), Solution: varchar, HealthEffect: varchar)

PK: (ADName)

Affect(**ADName**: char(20), **ProduceID**: int, Severeness: char(20), Date: date)

PK: (ADName, ProduceID)

FK: ADName references AgriculturalDisease

ProduceID references ContainIngredient

HealthIssue(IssueName: char(20), Effect: varchar, Symptom: varchar)

PK: (IssueName)

Medicine(DIN: int, Manufacturer: char(20), DName: char(20), Expiration: date)

PK: (DIN)

CK: (Manufacturer, DName)

Cause(**FPName**: char(20), **IssueName**: char(20), EmergencyLevel: char(20))

PK: (FPName, IssueName)

FK: FPName references FoodProductSell

IssueName references HealthIssue

Treatment(**IssueName**: char(20), **DIN**: int, Dose: varchar)

PK: (IssueName, DIN)

FK: IssueName references HealthIssue

DIN references Medicine

Screenshots: *what data is present in each relation*

ALL Tables




```
SQL> select table_name from user_tables;

TABLE_NAME
-----
COUNTRY
FOODSERVICEFROM
FOODPRODUCTSELL
GROCERYSTORE
RESTAURANT
CONTAININGREDIENT
PURCHASE
NUTRITIONBENEFITS
INCLUDENUTRITION
INGREDIENTEXPIRATION
DISEASESOLUTIONS






TABLE_NAME
-----
AGRICULTURALDISEASE
AFFECT
SYMPTOMEFFECTS
HEALTHISSUE
MEDICINE
CAUSE
TREATMENT

18 rows selected.
```





COUNTRY

	 COUNTRYNAME	 POPULATION	 CONTINENT
1	United States	331002651	North America
2	China	1439323776	Asia
3	India	1380004385	Asia
4	Brazil	212559417	South America
5	Russia	145934462	Europe
6	Nigeria	206139589	Africa
7	Japan	126476461	Asia
8	Mexico	128932753	North America
9	Germany	83783942	Europe
10	Egypt	102334404	Africa
11	Canada	38250001	North America



FOODSERVICEFROM

	 FSID	 FSNAME	 FSADDRESS	 HOURS	 COUNTRYNAME
1	1	Tasty Burgers	123 Main Street, Anytown	9am - 10pm	United States
2	2	Sushi Delight	456 Maple Avenue, Othertown	11am - 9pm	Japan
3	3	La Pizzeria	789 Oak Street, Anycity	12pm - 11pm	Canada
4	4	Taco Haven	321 Elm Street, Someville	10am - 8pm	Mexico
5	5	Curry House	567 Pine Street, Anothercity	11:30am - 10:30pm	India
6	6	Fresh Mart	100 Oak Avenue, Anytown	8am - 9pm	United States
7	7	Green Grocers	200 Maple Street, Othertown	9am - 8pm	Canada
8	8	Super Savers	300 Elm Road, Somewhere	7am - 10pm	United States
9	9	Quick Mart	400 Pine Drive, Anothercity	6am - 11pm	China
10	10	Neighborhood Market	500 Cedar Lane, Smalltown	10am - 7pm	Germany




FOODPRODUCTSELL

	 FPNAME	 DESCRIPTION	 RECIPE	 FSID
1	Cheeseburger	Classic beef burger topped with cheese, lettuce, and tomato	Beef patty, cheese, lettuce, tomato, burger bun	1
2	French Fries	Crispy golden French fries, perfect as a side dish	Potatoes, oil, salt	1
3	California Roll	Sushi roll filled with crab, avocado, and cucumber	Rice, crab, avocado, cucumber, seaweed	2
4	Miso Soup	Traditional Japanese soup made with miso paste and tofu	Dashi broth, miso paste, tofu, green onions	2
5	Margherita Pizza	Traditional Italian pizza with tomato sauce, mozzarella, and basil	Pizza dough, tomato sauce, mozzarella cheese, basil	3
6	Guacamole	Creamy avocado dip with tomatoes, onions, and cilantro	Avocado, tomatoes, onions, cilantro, lime juice	4
7	Tacos al Pastor	Mexican tacos filled with marinated pork, pineapple, and onions	Marinated pork, pineapple, onions, tortillas	4
8	Chicken Tikka Masala	Indian dish with grilled chicken in a creamy tomato sauce	Chicken, yogurt, tomatoes, spices, cream	5
9	Ground Beef	Freshly ground beef ideal for burgers and meatballs	Beef, seasoning	6
10	Tomatoes	Ripe and juicy tomatoes, perfect for salads and cooking	Tomatoes	6
11	Salmon Fillet	Premium quality salmon fillet, perfect for grilling or baking	Salmon	7
12	Whole Wheat Bread	Nutritious whole wheat bread, great for sandwiches and toasting	Whole wheat flour, water, yeast, salt	8
13	Apples	Fresh, juicy apples sourced locally	Apples	9
14	Organic Milk	Certified organic milk, free from antibiotics and hormones	Milk	10
15	Yogurt	Creamy yogurt, available in various flavors	Milk, cultures	10
16	Orange Juice	Freshly squeezed orange juice, rich in vitamin C	Oranges	10





GROCERYSTORE

	 FSID	 GSLICENSE	 DEPARTMENTS
1	6	123456	10
2	7	789012	8
3	8	345678	12
4	9	901234	6
5	10	567890	9




RESTAURANT

	 FSID	 RLICENSE	 TABLES
1	1	1234567	20
2	2	2345678	15
3	3	3456789	25
4	4	4567890	18
5	5	5678901	30

CONTAININGREDIENT

	 PRODUCEID	 INAME	 ORIGIN	 MFGDATE	 FPNAME
1	1	Beef patty	Local farm	2024-03-01	Cheeseburger
2	2	Cheese	Dairy farm	2024-02-28	Cheeseburger
3	3	Lettuce	Local farm	2024-03-02	Cheeseburger
4	4	Tomato	Local farm	2024-03-03	Cheeseburger
5	5	Potatoes	Local farm	2024-03-01	French Fries
6	6	Oil	Local supplier	2024-02-28	French Fries
7	7	Salt	Natural deposits	2024-02-27	French Fries
8	8	Crab	Coastal waters	2024-03-01	California Roll
9	9	Cucumber	Local farm	2024-03-03	California Roll
10	10	Seaweed	Coastal waters	2024-02-28	California Roll
11	11	Miso paste	Local supplier	2024-03-01	Miso Soup
12	12	Mozzarella cheese	Dairy farm	2024-02-29	Margherita Pizza
13	13	Avocado	Local farm	2024-03-01	Guacamole
14	14	Tomatoes	Local farm	2024-03-02	Guacamole
15	15	Marinated pork	Local butcher	2024-03-01	Tacos al Pastor

PURCHASE

	 PRODUCEID	 FSID	 ORDERID
1	1	1	1
2	2	1	1
3	3	1	1
4	4	1	1
5	5	1	2
6	6	1	2
7	7	1	2
8	8	2	3
9	9	2	3
10	10	2	3
11	11	2	4
12	12	3	5
13	13	4	6
14	14	4	6
15	15	4	7

NUTRITIONBENEFITS

	CHEMNAME	BENEFITS
1	Protein	Promotes muscle growth and repair, helps in enzyme and hormone production
2	Fat	Provides energy, supports cell growth, protects organs, helps absorb certain vitamins
3	Carbohydrates	Main source of energy, essential for brain function and physical activity

INCLUDEDNUTRITION

	PRODUCEID	CHEMNAME	AMOUNT
1	1	Protein	20
2	1	Fat	15
3	1	Carbohydrates	5
4	2	Protein	10
5	2	Fat	12
6	2	Carbohydrates	3
7	3	Protein	1
8	3	Carbohydrates	2
9	4	Protein	1
10	4	Carbohydrates	3
11	5	Protein	2
12	5	Carbohydrates	20
13	6	Protein	0
14	6	Fat	30
15	7	Protein	0

INGREDIENTEXPIRATION

	INAME	ORIGIN	MFGDATE	EXPIRATION
1	Beef patty	Local farm	2024-03-01	2024-03-15
2	Cheese	Dairy farm	2024-02-28	2024-03-14
3	Lettuce	Local farm	2024-03-02	2024-03-16
4	Tomato	Local farm	2024-03-03	2024-03-17
5	Oil	Local supplier	2024-02-28	2025-02-28
6	Salt	Natural deposits	2024-02-27	<null>
7	Crab	Coastal waters	2024-03-01	2024-03-10
8	Seaweed	Coastal waters	2024-02-28	2024-03-14
9	Miso paste	Local supplier	2024-03-01	2025-03-01
10	Mozzarella cheese	Dairy farm	2024-02-29	2024-03-14
11	Marinated pork	Local butcher	2024-03-01	2024-03-08

DISEASESOLUTIONS

	🔗 TYPE	📄 SOLUTION
1	Natural Hazard	Implement proper drainage systems to mitigate flooding risks.
2	Chemical	Use organic pesticides and herbicides to minimize chemical exposure.
3	Biological	Introduce natural predators to control pest populations.
4	Virus	Implement strict biosecurity measures to prevent disease transmission.

AGRICULTURALDISEASE

	🔗 ADNAME	🔗 TYPE	📄 HEALTHEFFECT
1	Flood Damage	Natural Hazard	Loss of crops and soil erosion due to flooding.
2	Pesticide Toxicity	Chemical	<null>
3	Insect Infestation	Biological	Crop damage caused by pest insects.
4	BSE	Biological	Might destroy the human brain and spinal cord
5	Tomato Spotted Wilt Virus	Virus	Unknown

AFFECT

	🔗 ADNAME	🔗 PRODUCEID	📄 SEVERENESS	📄 AFFECTDATE
1	BSE		10	2024-03-15
2	Flood Damage		5	2024-04-11
3	Insect Infestation		3	2024-05-10
4	Tomato Spotted Wilt Virus		4	2024-05-21





SYMPTOMEFFECTS

	🔗 SYMPTOM	📄 EFFECT
1	Nausea	Feeling of sickness in the stomach, often leading to vomitin...
2	Diarrhea	Frequent passage of loose, watery stools.
3	Abdominal Pain	Pain or discomfort in the area between the chest and pelvis.
4	Skin Rash	Red, itchy rash on the skin.
5	Swelling	Swelling of the face, lips, tongue, or throat.
6	Difficulty with Movement	Hard to move.
7	Plaque buildup in arteries, increased risk of heart disease	Accumulation of fatty deposits in the arteries, leading to c...
8	Neurological symptoms, muscle weakness, numbness, tremors	Various symptoms affecting the nervous system and muscle fun...
9	Burning sensation in chest, acid reflux	Uncomfortable burning feeling in the chest, often accompanie...
10	Heartburn, regurgitation, chest pain, difficulty swallowing	Various symptoms related to acid reflux and digestive issues
11	Abdominal pain, bloating, gas, diarrhea	Discomfort and irregularity in the digestive system




HEALTHISSUE

	🔗 ISSUENAME	🔗 SYMPTOM
1	Digestive Problems	Abdominal pain, bloating, gas, diarrhea
2	Food Poisoning	Nausea
3	Gastroenteritis	Diarrhea
4	Obesity	Difficulty with Movement
5	Irritable Bowel Syndrome (IBS)	Abdominal Pain
6	Gluten Intolerance	Diarrhea
7	Nut Allergy	Skin Rash
8	Seafood Allergy	Swelling
9	High Cholesterol	Plaque buildup in arteries, increased risk of heart disease
10	Mercury Poisoning	Neurological symptoms, muscle weakness, numbness, tremors
11	Heartburn	Burning sensation in chest, acid reflux
12	Acid Reflux	Heartburn, regurgitation, chest pain, difficulty swallowing




MEDICINE

	 DIN	 MANUFACTURER	 DNAME	 EXPIRATION
1	123456	ABC Pharmaceuticals	Antacid	2024-12-31
2	234567	DEF Labs	Anti-diarrheal	2025-06-30
3	345678	MediCo	IBS Relief	2023-10-15
4	456789	Global Health	EpiPen	2024-08-20
5	567890	PharmaCorp	Antihistamine	2024-05-15

CAUSE

	 FPNAME	 ISSUENAME	 EMERGENCYLEVEL
1	Cheeseburger	Food Po	
2	French Fries	Obesity	Low
3	California Roll	Seafood Allergy	High
4	Miso Soup	Gastroenteritis	Medium
5	Margherita Pizza	Gluten Intolerance	Low
6	Guacamole	Nut Allergy	High
7	Cheeseburger	Obesity	Medium
8	Cheeseburger	High Cholesterol	Low
9	California Roll	Digestive Problems	Medium
10	Guacamole	Heartburn	Low
11	Guacamole	Acid Reflux	Medium

TREATMENT

	 ISSUENAME	 DIN	 DOSE
1	Food Poisoning	123456	Take 2 tablets after meals
2	Gastroenteritis	234567	Take 1 tablet every 6 hours as needed
3	Irritable Bowel Syndrome (IBS)	345678	Take 1 capsule daily with water
4	Nut Allergy	456789	Administer intramuscularly at onset of symptoms
5	Seafood Allergy	456789	Administer intramuscularly at onset of symptoms




SQL QUERIES and Screenshots

Insert:

Country.php : 213-229

INSERT INTO Country VALUES (\$countryName, \$population, \$continent);

Before:

	 COUNTRYNAME	 POPULATION	 CONTINENT
1	United States	331002651	North America
2	China	1439323776	Asia
3	India	1380004385	Asia
4	Brazil	212559417	South America
5	Russia	145934462	Europe
6	Nigeria	206139589	Africa
7	Japan	126476461	Asia
8	Mexico	128932753	North America
9	Germany	83783942	Europe
10	Egypt	102334404	Africa
11	Canada	38250000	North America

GUI:




Insert Values into Country Table

Country Name:

Population:

Continent:

After:

	 COUNTRYNAME	 POPULATION	 CONTINENT
1	France	67960000	Europe
2	United States	331002651	North America
3	China	1439323776	Asia
4	India	1380004385	Asia
5	Brazil	212559417	South America
6	Russia	145934462	Europe
7	Nigeria	206139589	Africa
8	Japan	126476461	Asia
9	Mexico	128932753	North America
10	Germany	83783942	Europe
11	Egypt	102334404	Africa
12	Canada	38250000	North America

Delete:

Country.php : 231-248

`DELETE FROM Country WHERE COUNTRYNAME = '$countryName';`

Before:

	COUNTRYNAME	POPULATION	CONTINENT
1	France	67960000	Europe
2	United States	331002651	North America
3	China	1439323776	Asia
4	India	1380004385	Asia
5	Brazil	212559417	South America
6	Russia	145934462	Europe
7	Nigeria	206139589	Africa
8	Japan	126476461	Asia
9	Mexico	128932753	North America
10	Germany	83783942	Europe
11	Egypt	102334404	Africa
12	Canada	38250000	North America

GUI:

Delete Values From Country Table

Country Name:

Population: (>, <, =, >=, <=, <>)

Continent:

After:

	COUNTRYNAME	POPULATION	CONTINENT
1	United States	331002651	North America
2	China	1439323776	Asia
3	India	1380004385	Asia
4	Brazil	212559417	South America
5	Russia	145934462	Europe
6	Nigeria	206139589	Africa
7	Japan	126476461	Asia
8	Mexico	128932753	North America
9	Germany	83783942	Europe
10	Egypt	102334404	Africa
11	Canada	38250000	North America

Update:

Country.php : 250-259

```
UPDATE Country SET Population='$newPopulation' WHERE  
CountryName='$contryName';
```

Before:

	COUNTRYNAME	POPULATION	CONTINENT
1	United States	331002651	North America
2	China	1439323776	Asia
3	India	1380004385	Asia
4	Brazil	212559417	South America
5	Russia	145934462	Europe
6	Nigeria	206139589	Africa
7	Japan	126476461	Asia
8	Mexico	128932753	North America
9	Germany	83783942	Europe
10	Egypt	102334404	Africa
11	Canada	38250000	North America

GUI:

Update Population of Country

Country:

New Population:

After:

	COUNTRYNAME	POPULATION	CONTINENT
1	United States	331002651	North America
2	China	1439323776	Asia
3	India	1380004385	Asia
4	Brazil	212559417	South America
5	Russia	145934462	Europe
6	Nigeria	206139589	Africa
7	Japan	126476461	Asia
8	Mexico	128932753	North America
9	Germany	83783942	Europe
10	Egypt	102334404	Africa
11	Canada	38250001	North America

Selection:

FoodServiceFrom.php : 241-275

```
SELECT * FROM FoodServiceFrom
```

```
WHERE FSNAME = '$fsname'
```

```
AND TO_DATE(SUBSTR(Hours, 1, INSTR(Hours, '-', 1) - 2), 'HH:MI:AM') <=
```

```
TO_DATE('$time', 'HH:MI:AM') AND TO_DATE(SUBSTR(Hours,
```

```
INSTR(Hours, '-', 1) + 2), 'HH:MI:AM') >= TO_DATE('$time', 'HH:MI:AM')
```

```
AND FSADDRESS LIKE '%$location%'
```

```
AND COUNTRYNAME = '$countryName';
```

Before:

	FSID	FSNAME	FSADDRESS	HOURS	COUNTRYNAME
1		1 Tasty Burgers	123 Main Street, Anytown	9:00am - 10:00pm	United States
2		2 Sushi Delight	456 Maple Avenue, Othertown	11:00am - 9:00pm	Japan
3		3 La Pizzeria	789 Oak Street, Anycity	12:00pm - 11:00pm	Canada
4		4 Taco Haven	321 Elm Street, Someville	10:00am - 8:00pm	Mexico
5		5 Curry House	567 Pine Street, Anothercity	11:30am - 10:30pm	India
6		6 Fresh Mart	100 Oak Avenue, Anytown	8:00am - 9:00pm	United States
7		7 Green Grocers	200 Maple Street, Othertown	9:00am - 8:00pm	Canada
8		8 Super Savers	300 Elm Road, Somewhere	7:00am - 10:00pm	United States
9		9 Quick Mart	400 Pine Drive, Anothercity	6:00am - 11:00pm	China
10		10 Neighborhood Market	500 Cedar Lane, Smalltown	10:00am - 7:00pm	Germany

GUI:

Select From FoodServiceFrom Table

Name:

Time(HH:MI:AM):

Location:

Country:

After:

	FSID	FSNAME	FSADDRESS	HOURS	COUNTRYNAME
1		6 Fresh Mart	100 Oak Avenue, Anytown	8:00am - 9:00pm	United States
2		1 Tasty Burgers	123 Main Street, Anytown	9:00am - 10:00pm	United States

Projection:

FoodServiceFrom.php : 277-288

```
SELECT $selectedAttributes FROM FoodServiceFrom;
```

Before:

	FSID	FSNAME	FSADDRESS	HOURS	COUNTRYNAME
1		1 Tasty Burgers	123 Main Street, Anytown	9:00am - 10:00pm	United States
2		2 Sushi Delight	456 Maple Avenue, Othertown	11:00am - 9:00pm	Japan
3		3 La Pizzeria	789 Oak Street, Anycity	12:00pm - 11:00pm	Canada
4		4 Taco Haven	321 Elm Street, Someville	10:00am - 8:00pm	Mexico
5		5 Curry House	567 Pine Street, Anothercity	11:30am - 10:30pm	India
6		6 Fresh Mart	100 Oak Avenue, Anytown	8:00am - 9:00pm	United States
7		7 Green Grocers	200 Maple Street, Othertown	9:00am - 8:00pm	Canada
8		8 Super Savers	300 Elm Road, Somewhere	7:00am - 10:00pm	United States
9		9 Quick Mart	400 Pine Drive, Anothercity	6:00am - 11:00pm	China
10		10 Neighborhood Market	500 Cedar Lane, Smalltown	10:00am - 7:00pm	Germany

GUI:

Projection of FoodServiceFrom Table

FSID: ☒
FSName: ☒
FSAddress: ☒
Hours: ☒
CountryName: ☐

After:

	FSID	FSNAME	FSADDRESS	HOURS
1		1 Tasty Burgers	123 Main Street, Anytown	9:00am - 10:00pm
2		2 Sushi Delight	456 Maple Avenue, Othertown	11:00am - 9:00pm
3		3 La Pizzeria	789 Oak Street, Anycity	12:00pm - 11:00pm
4		4 Taco Haven	321 Elm Street, Someville	10:00am - 8:00pm
5		5 Curry House	567 Pine Street, Anothercity	11:30am - 10:30pm
6		6 Fresh Mart	100 Oak Avenue, Anytown	8:00am - 9:00pm
7		7 Green Grocers	200 Maple Street, Othertown	9:00am - 8:00pm
8		8 Super Savers	300 Elm Road, Somewhere	7:00am - 10:00pm
9		9 Quick Mart	400 Pine Drive, Anothercity	6:00am - 11:00pm
10		10 Neighborhood Market	500 Cedar Lane, Smalltown	10:00am - 7:00pm

Join:

Home.PHP Line 327-322

```
SELECT *
```

```
FROM FoodProductSell FDS
```

```
JOIN ContainIngredient CTI ON FDS.FPName =
```

```
CTI.FPName
```

```
JOIN IncludeNutrition ICN ON CTI.ProduceID =
```

```
ICN.ProduceID
```

```
JOIN NutritionBenefits NB ON ICN.ChemName =
```

```
NB.ChemName
```

```
WHERE FDS.FPName = '$Fname'
```

Before:

FoodProductSell

	🔍 FPNAME ▾	÷	📄 DESCRIPTION ▾	÷	📄 RECIPE ▾	÷	🔍 FSID ▾	÷
1	Cheeseburger		Classic beef burger topped with cheese, lettuce, an...		Beef patty, cheese, lettuce, tomato, burger bun			1
2	French Fries		Crispy golden French fries, perfect as a side dish		Potatoes, oil, salt			1
3	California Roll		Sushi roll filled with crab, avocado, and cucumber		Rice, crab, avocado, cucumber, seaweed			2
4	Miso Soup		Traditional Japanese soup made with miso paste and ...		Dashi broth, miso paste, tofu, green onions			2
5	Margherita Pizza		Traditional Italian pizza with tomato sauce, mozzar...		Pizza dough, tomato sauce, mozzarella cheese, basil			3
6	Guacamole		Creamy avocado dip with tomatoes, onions, and cilan...		Avocado, tomatoes, onions, cilantro, lime juice			4
7	Tacos al Pastor		Mexican tacos filled with marinated pork, pineapple...		Marinated pork, pineapple, onions, tortillas			4
8	Chicken Tikka Masala		Indian dish with grilled chicken in a creamy tomato...		Chicken, yogurt, tomatoes, spices, cream			5
9	Ground Beef		Freshly ground beef ideal for burgers and meatballs		Beef, seasoning			6
10	Tomatoes		Ripe and juicy tomatoes, perfect for salads and coo...		Tomatoes			6
11	Salmon Fillet		Premium quality salmon fillet, perfect for grilling...		Salmon			7
12	Whole Wheat Bread		Nutritious whole wheat bread, great for sandwiches ...		Whole wheat flour, water, yeast, salt			8
13	Apples		Fresh, juicy apples sourced locally		Apples			9
14	Organic Milk		Certified organic milk, free from antibiotics and h...		Milk			10
15	Yogurt		Creamy yogurt, available in various flavors		Milk, cultures			10
16	Orange Juice		Freshly squeezed orange juice, rich in vitamin C		Oranges			10

ContainIngredient

	🔍 PRODUCEID ▾	÷	📄 INAME ▾	÷	📄 ORIGIN ▾	÷	📄 MFGDATE ▾	÷	🔍 FPNAME ▾	÷
1			1 Beef patty		Local farm		2024-03-01		Cheeseburger	
2			2 Cheese		Dairy farm		2024-02-28		Cheeseburger	
3			3 Lettuce		Local farm		2024-03-02		Cheeseburger	
4			4 Tomato		Local farm		2024-03-03		Cheeseburger	
5			5 Potatoes		Local farm		2024-03-01		French Fries	
6			6 Oil		Local supplier		2024-02-28		French Fries	
7			7 Salt		Natural deposits		2024-02-27		French Fries	
8			8 Crab		Coastal waters		2024-03-01		California Roll	
9			9 Cucumber		Local farm		2024-03-03		California Roll	
10			10 Seaweed		Coastal waters		2024-02-28		California Roll	
11			11 Miso paste		Local supplier		2024-03-01		Miso Soup	
12			12 Mozzarella cheese		Dairy farm		2024-02-29		Margherita Pizza	
13			13 Avocado		Local farm		2024-03-01		Guacamole	
14			14 Tomatoes		Local farm		2024-03-02		Guacamole	
15			15 Marinated pork		Local butcher		2024-03-01		Tacos al Pastor	

IncludeNutrition

	🔍 PRODUCEID ▾	÷	🔍 CHEMNAME ▾	÷	📄 AMOUNT ▾	÷
1			1 Protein			20
2			1 Fat			15
3			1 Carbohydrates			5
4			2 Protein			10
5			2 Fat			12
6			2 Carbohydrates			3
7			3 Protein			1
8			3 Carbohydrates			2
9			4 Protein			1
10			4 Carbohydrates			3
11			5 Protein			2
12			5 Carbohydrates			20
13			6 Protein			0
14			6 Fat			30
15			7 Protein			0

NutritionBenefits

	🔍 CHEMNAME ▾	÷	📄 BENEFITS ▾	÷
1	Protein		Promotes muscle growth and repair, helps in enzyme and hormone production	
2	Fat		Provides energy, supports cell growth, protects organs, helps absorb certain vitamins	
3	Carbohydrates		Main source of energy, essential for brain function and physical activity	

GUI:

Search Food Product Information

Put the Food Name, Search ingredients and their nutritional benefits.

Food Name:

After:

	FPNAME	CHEMNAME	BENEFITS
1	French Fries	Protein	Promotes muscle growth and repair, helps in enzyme and hormone production
2	French Fries	Protein	Promotes muscle growth and repair, helps in enzyme and hormone production
3	French Fries	Protein	Promotes muscle growth and repair, helps in enzyme and hormone production
4	French Fries	Fat	Provides energy, supports cell growth, protects organs, helps absorb certain v...
5	French Fries	Carbohydrates	Main source of energy, essential for brain function and physical activity

Group By:

Home.PHP Line: 374

SELECT DISTINCT CN.FPNAME, SUM(INC.Amount) as suma FROM
CONTAININGREDIENT CN,INCLUDENUTRITION INC WHERE
CN.ProduceID = INC.ProduceID Group by CN.FPNAME

Before:

ContainIngredient

	PRODUCEID	INAME	ORIGIN	MFGDATE	FPNAME
1	1	Beef patty	Local farm	2024-03-01	Cheeseburger
2	2	Cheese	Dairy farm	2024-02-28	Cheeseburger
3	3	Lettuce	Local farm	2024-03-02	Cheeseburger
4	4	Tomato	Local farm	2024-03-03	Cheeseburger
5	5	Potatoes	Local farm	2024-03-01	French Fries
6	6	Oil	Local supplier	2024-02-28	French Fries
7	7	Salt	Natural deposits	2024-02-27	French Fries
8	8	Crab	Coastal waters	2024-03-01	California Roll
9	9	Cucumber	Local farm	2024-03-03	California Roll
10	10	Seaweed	Coastal waters	2024-02-28	California Roll
11	11	Miso paste	Local supplier	2024-03-01	Miso Soup
12	12	Mozzarella cheese	Dairy farm	2024-02-29	Margherita Pizza
13	13	Avocado	Local farm	2024-03-01	Guacamole
14	14	Tomatoes	Local farm	2024-03-02	Guacamole
15	15	Marinated pork	Local butcher	2024-03-01	Tacos al Pastor

IncludeNutrition

	PRODUCEID	CHEMNAME	AMOUNT
1	1	Protein	20
2	1	Fat	15
3	1	Carbohydrates	5
4	2	Protein	10
5	2	Fat	12
6	2	Carbohydrates	3
7	3	Protein	1
8	3	Carbohydrates	2
9	4	Protein	1
10	4	Carbohydrates	3
11	5	Protein	2
12	5	Carbohydrates	20
13	6	Protein	0
14	6	Fat	30
15	7	Protein	0

GUI:

Search Food with Most Nutrient

Search

After:

	FPNAME	SUMA
1	Cheeseburger	72
2	French Fries	52

Group By Having:

Home.PHP line 345

SELECT DISTINCT FPNAME,Count(ISSUENAME) as countIssues FROM
CAUSE Group by FPNAME having Count(ISSUENAME) > '\$Number'

Before:

	FPNAME	ISSUENAME	EMERGENCYLEVEL
1	Cheeseburger	Food Poisoning	High
2	French Fries	Obesity	Low
3	California Roll	Seafood Allergy	High
4	Miso Soup	Gastroenteritis	Medium
5	Margherita Pizza	Gluten Intolerance	Low
6	Guacamole	Nut Allergy	High
7	Cheeseburger	Obesity	Medium
8	Cheeseburger	High Cholesterol	Low
9	California Roll	Digestive Problems	Medium
10	Guacamole	Heartburn	Low
11	Guacamole	Acid Reflux	Medium

GUI:

Find out How Many Health Issues Food Can Cause

Issues Number:

After:

	FPNAME	COUNTISSUES
1	California Roll	2
2	Cheeseburger	3
3	Guacamole	3

Group By Nested Aggregation:

Home.PHP Line 354-366

```
SELECT FS.FSName, MAX(AvgNutrition.Amount) as MaxAvgNutrientAmount
FROM FoodServiceFrom FS
JOIN (
    SELECT FPS.FSID, AVG(INut.Amount) AS Amount
    FROM FoodProductSell FPS
    JOIN ContainIngredient CI ON FPS.FPName = CI.FPName
    JOIN IncludeNutrition INut ON CI.ProduceID =
INut.ProduceID
    WHERE INut.ChemName = '$nutrientName'
    GROUP BY FPS.FSID
) AvgNutrition ON FS.FSID = AvgNutrition.FSID
GROUP BY FS.FSName
```

Before:

FoodProductSell

	FPNAME	DESCRIPTION	RECIPE	FSID
1	Cheeseburger	Classic beef burger topped with cheese, lettuce, an...	Beef patty, cheese, lettuce, tomato, burger bun	1
2	French Fries	Crispy golden French fries, perfect as a side dish	Potatoes, oil, salt	1
3	California Roll	Sushi roll filled with crab, avocado, and cucumber	Rice, crab, avocado, cucumber, seaweed	2
4	Miso Soup	Traditional Japanese soup made with miso paste and ...	Dashi broth, miso paste, tofu, green onions	2
5	Margherita Pizza	Traditional Italian pizza with tomato sauce, mozzar...	Pizza dough, tomato sauce, mozzarella cheese, basil	3
6	Guacamole	Creamy avocado dip with tomatoes, onions, and cilan...	Avocado, tomatoes, onions, cilantro, lime juice	4
7	Tacos al Pastor	Mexican tacos filled with marinated pork, pineapple...	Marinated pork, pineapple, onions, tortillas	4
8	Chicken Tikka Masala	Indian dish with grilled chicken in a creamy tomato...	Chicken, yogurt, tomatoes, spices, cream	5
9	Ground Beef	Freshly ground beef ideal for burgers and meatballs	Beef, seasoning	6
10	Tomatoes	Ripe and juicy tomatoes, perfect for salads and coo...	Tomatoes	6
11	Salmon Fillet	Premium quality salmon fillet, perfect for grilling...	Salmon	7
12	Whole Wheat Bread	Nutritious whole wheat bread, great for sandwiches ...	Whole wheat flour, water, yeast, salt	8
13	Apples	Fresh, juicy apples sourced locally	Apples	9
14	Organic Milk	Certified organic milk, free from antibiotics and h...	Milk	10
15	Yogurt	Creamy yogurt, available in various flavors	Milk, cultures	10
16	Orange Juice	Freshly squeezed orange juice, rich in vitamin C	Oranges	10

ContainIngredient

	PRODUCEID	INAME	ORIGIN	MFGDATE	FPNAME
1	1	Beef patty	Local farm	2024-03-01	Cheeseburger
2	2	Cheese	Dairy farm	2024-02-28	Cheeseburger
3	3	Lettuce	Local farm	2024-03-02	Cheeseburger
4	4	Tomato	Local farm	2024-03-03	Cheeseburger
5	5	Potatoes	Local farm	2024-03-01	French Fries
6	6	Oil	Local supplier	2024-02-28	French Fries
7	7	Salt	Natural deposits	2024-02-27	French Fries
8	8	Crab	Coastal waters	2024-03-01	California Roll
9	9	Cucumber	Local farm	2024-03-03	California Roll
10	10	Seaweed	Coastal waters	2024-02-28	California Roll
11	11	Miso paste	Local supplier	2024-03-01	Miso Soup
12	12	Mozzarella cheese	Dairy farm	2024-02-29	Margherita Pizza
13	13	Avocado	Local farm	2024-03-01	Guacamole
14	14	Tomatoes	Local farm	2024-03-02	Guacamole
15	15	Marinated pork	Local butcher	2024-03-01	Tacos al Pastor

IncludeNutrition

	PRODUCEID	CHEMNAME	AMOUNT
1	1	Protein	20
2	1	Fat	15
3	1	Carbohydrates	5
4	2	Protein	10
5	2	Fat	12
6	2	Carbohydrates	3
7	3	Protein	1
8	3	Carbohydrates	2
9	4	Protein	1
10	4	Carbohydrates	3
11	5	Protein	2
12	5	Carbohydrates	20
13	6	Protein	0
14	6	Fat	30
15	7	Protein	0

GUI:

Find out the Maximum Average of the Amount of Nutrient Served by a Food Service

Nutrient:

Search

After:

	FSNAME	MAXAVGNUTRIENTAMOUNT
1	Tasty Burgers	4.85714285714285714285714285714286

Division:

Purchase.php : 188-206



SELECT FSID, FSNAME, FSADDRESS

From FOODSERVICEFROM



WHERE NOT EXISTS(SELECT ProduceID
FROM ContainIngredient

WHERE ContainIngredient.ProduceID IN ('\$ids')
MINUS
SELECT P.ProduceID
From Purchase P
WHERE P.FSID = FoodServiceFrom.FSID)



Before:
FoodServiceFrom

	 FSID	FSNAME	FSADDRESS	HOURS	 COUNTRYNAME
1	1	Tasty Burgers	123 Main Street, Anytown	9:00am - 10:00pm	United States
2	2	Sushi Delight	456 Maple Avenue, Othertown	11:00am - 9:00pm	Japan
3	3	La Pizzeria	789 Oak Street, Anycity	12:00pm - 11:00pm	Canada
4	4	Taco Haven	321 Elm Street, Someville	10:00am - 8:00pm	Mexico
5	5	Curry House	567 Pine Street, Anothercity	11:30am - 10:30pm	India
6	6	Fresh Mart	100 Oak Avenue, Anytown	8:00am - 9:00pm	United States
7	7	Green Grocers	200 Maple Street, Othertown	9:00am - 8:00pm	Canada
8	8	Super Savers	300 Elm Road, Somewhere	7:00am - 10:00pm	United States
9	9	Quick Mart	400 Pine Drive, Anothercity	6:00am - 11:00pm	China
10	10	Neighborhood Market	500 Cedar Lane, Smalltown	10:00am - 7:00pm	Germany

ContainIngredient

	 PRODUCEID	INAME	ORIGIN	MFGDATE	 FPNAME
1	1	Beef patty	Local farm	2024-03-01	Cheeseburger
2	2	Cheese	Dairy farm	2024-02-28	Cheeseburger
3	3	Lettuce	Local farm	2024-03-02	Cheeseburger
4	4	Tomato	Local farm	2024-03-03	Cheeseburger
5	5	Potatoes	Local farm	2024-03-01	French Fries
6	6	Oil	Local supplier	2024-02-28	French Fries
7	7	Salt	Natural deposits	2024-02-27	French Fries
8	8	Crab	Coastal waters	2024-03-01	California Roll
9	9	Cucumber	Local farm	2024-03-03	California Roll
10	10	Seaweed	Coastal waters	2024-02-28	California Roll
11	11	Miso paste	Local supplier	2024-03-01	Miso Soup
12	12	Mozzarella cheese	Dairy farm	2024-02-29	Margherita Pizza
13	13	Avocado	Local farm	2024-03-01	Guacamole
14	14	Tomatoes	Local farm	2024-03-02	Guacamole
15	15	Marinated pork	Local butcher	2024-03-01	Tacos al Pastor

Purchase




	 PRODUCEID	 FSID	ORDERID
1	1	1	1
2	2	1	1
3	3	1	1
4	4	1	1
5	5	1	2
6	6	1	2
7	7	1	2
8	8	2	3
9	9	2	3
10	10	2	3
11	11	2	4
12	12	3	5
13	13	4	6
14	14	4	6
15	15	4	7

GUI:

Find the Food Services who Purchased All the Given Produce

Produce IDs (seperate by comma):

After:

	 FSID	↕	 FSNAME	↕	 FSADDRESS	↕
1		4	Taco Haven		321 Elm Street, Someville	