CPSC 304 Project Cover Page

Milestone #: _	<u>4</u>
Date:	03/30 2024
Group Numbe	er: <u>53</u>

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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(<u>FPName</u>: 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(<u>ProduceID</u>: int, <u>ChemName</u>: 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(<u>DIN</u>: 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	ef patty, cheese, lettuce, toma	to, burger bun	
2	French Fries	Crispy golden French fries, perfect as a side dish	tatoes, oil, salt		
3	California Roll	Sushi roll filled with crab, avocado, and cucumber	.ce, crab, avocado, cucumber, se	aweed	
4	Miso Soup	Traditional Japanese soup made with miso paste and tofu	shi broth, miso paste, tofu, gr	een onions	
5	Margherita Pizza	Traditional Italian pizza with tomato sauce, mozzarella, and basil	zza dough, tomato sauce, mozzar	ella cheese, basil	
6	Guacamole	Creamy avocado dip with tomatoes, onions, and cilantro	ocado, tomatoes, onions, cilant	ro, lime juice	
7	Tacos al Pastor	Mexican tacos filled with marinated pork, pineapple, and onions	rinated pork, pineapple, onions	, tortillas	
8	Chicken Tikka Masala	Indian dish with grilled chicken in a creamy tomato sauce	icken, yogurt, tomatoes, spices	, cream	
9	Ground Beef	Freshly ground beef ideal for burgers and meatballs	ef, seasoning		
10	Tomatoes	Ripe and juicy tomatoes, perfect for salads and cooking	matoes		
11	Salmon Fillet	Premium quality salmon fillet, perfect for grilling or baking	lmon		
12	Whole Wheat Bread	Nutritious whole wheat bread, great for sandwiches and toasting	ole wheat flour, water, yeast,	salt	
13	Apples	Fresh, juicy apples sourced locally	ples		
14	Organic Milk	Certified organic milk, free from antibiotics and hormones			10
15	Yogurt	Creamy yogurt, available in various flavors	lk, cultures		10
16	Orange Juice	Freshly squeezed orange juice, rich in vitamin C	anges		

GROCERYSTORE

	∏ FSID ÷	☐ GSLICENSE	‡	□ DEPARTMENTS	‡
1	6	:	123456		10
2	7	:	789012		8
3	8	;	345678		12
4	9	Ç	901234		6
5	10	į	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

	<pre> □ PRODUCEID</pre>	□ INAME ÷	□ ORIGIN ÷		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

	<pre> □ PRODUCEID</pre>	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

INCLUDENUTRITION

	RODUCEID	‡	ুন্ন 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

	TNAME A	C OBJOIN	□ MECDATE A	C EVELPATION A
	্বি 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></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

	<u>∏</u> 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 ÷	□	☐ HEALTHEFFECT	\$
1	Flood Damage	Natural Hazard	Loss of crops and soil erosion due to flooding.	
2	Pesticide Toxicity	Chemical	<null></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

		ু PRODUCEID ÷	☐ SEVERENESS ÷	☐ AFFECTDATE ÷
1	BSE	1	10	2024-03-15
2	Flood Damage	5	8	2024-04-11
3	Insect Infestation	3	6	2024-05-10
4	Tomato Spotted Wilt Virus	4	7	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

	<u></u> DIN ÷		□ 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 Pc ISSUENAME: VARC	HAR2(50)
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

	ুরু 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	

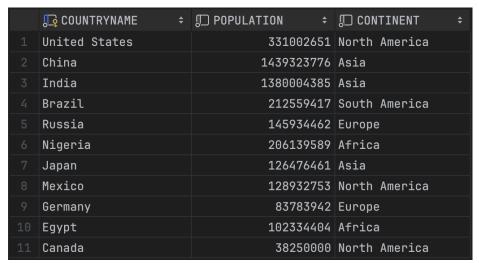
SQL QUERIES and Screenshots

Insert:

Country.php: 213-229

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

Before:



GUI:

Insert Values into Country Table

Country Name: France					
Population: 67960000					
Continent: Europe					
Insert					

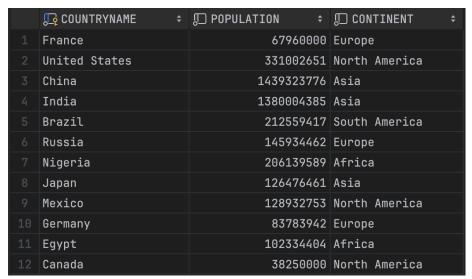
		_	_
	COUNTRYNAME \$	□ POPULATION	☐ CONTINENT ÷
1	France	67960000	Europe
2	United States	331002651	North America
3	China	1439323776	Asia
4	India	1380004385	Asia
5	Brazil	212559417	South America
6	Russia	145934462	Europe
7	Nigeria	206139589	Africa
8	Japan	126476461	Asia
9	Mexico	128932753	North America
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:



GUI:

Delete Values From Country Table

Country Name:	France	
Population:		(>, <, =, >=, <=, <>)
Continent:		
Delete		

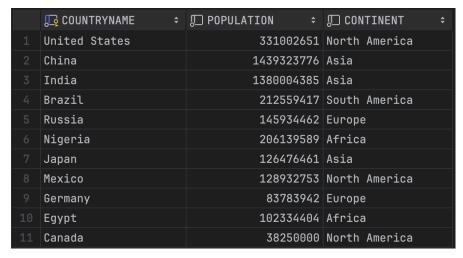
	□ COUNTRYNAME	□ POPULATION	☐ CONTINENT ÷
	United States	331002651	North America
	China	1439323776	Asia
	India	1380004385	Asia
	Brazil	212559417	South America
	Russia	145934462	Europe
	Nigeria	206139589	Africa
	Japan	126476461	Asia
	Mexico	128932753	North America
	Germany	83783942	Europe
	Egypt	102334404	Africa
	Canada	38250000	North America

Update:

Country.php: 250-259

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

Before:



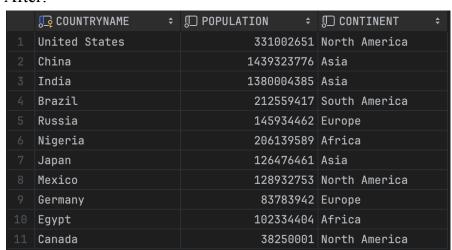
GUI:

Update Population of Country

Country: Canada

New Population: 38250001

Update



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 = '\$countyName';

Before:



GUI:

Select From FoodServiceFrom Table

Name:
Time(HH:MI:AM): 11:00am
Location: Anytown
Country: United States
Select

	<u>∏</u> FSID		☐ FSNAME	☐ FSADDRESS		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		Tasty Burgers	123 Main Street, Anytown	9:00am - 10:00pm	United States
2		Sushi Delight	456 Maple Avenue, Othertown	11:00am - 9:00pm	Japan
3		La Pizzeria	789 Oak Street, Anycity	12:00pm - 11:00pm	Canada
4		Taco Haven	321 Elm Street, Someville	10:00am - 8:00pm	Mexico
5		Curry House	567 Pine Street, Anothercity	11:30am - 10:30pm	India
6		Fresh Mart	100 Oak Avenue, Anytown	8:00am - 9:00pm	United States
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		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: □
Projection

After:

	∏ FSID ÷	☐ FSNAME	: III	FSADDRESS	Hours Hours Hours Hours Hours	\$
1		Tasty Burgers	123	Main Street, Anytown	9:00am - 10:00pm	
2		Sushi Delight	456	Maple Avenue, Othertown	11:00am - 9:00pm	
3		La Pizzeria	789	Oak Street, Anycity	12:00pm - 11:00pm	
4		Taco Haven	321	Elm Street, Someville	10:00am - 8:00pm	
5		Curry House	567	Pine Street, Anothercity	11:30am - 10:30pm	
6		Fresh Mart	100	Oak Avenue, Anytown	8:00am - 9:00pm	
7		Green Grocers	200	Maple Street, Othertown	9:00am - 8:00pm	
8	8	Super Savers	300	Elm Road, Somewhere	7:00am - 10:00pm	
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

	C				
	₽RODUCEID 7 ÷	□ 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		Tomato	Local farm	2024-03-03	Cheeseburger
5		Potatoes	Local farm	2024-03-01	French Fries
6		Oil	Local supplier	2024-02-28	French Fries
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

	RODUCEID	₹ \$	₩ CHEMNAME	₹ \$	□ AMOUNT	₹ \$
1		1	Protein			20
2		1	Fat			15
3		1	Carbohydrat	es		5
4		2	Protein			10
5		2	Fat			12
6		2	Carbohydrate	es		3
7		3	Protein			1
8		3	Carbohydrate	es		2
9		4	Protein			1
10		4	Carbohydrate	es		3
11		5	Protein			2
12		5	Carbohydrat	es		20
13		6	Protein			0
14		6	Fat			30
15		7	Protein			Θ

NutritionBenefits

	☐ CHEMNAME 🎖 💠	□ BENEFITS 7	\$
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	

Search Food Product Information

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

Food Name: French Fries

Search

After:

	☐ FPNAME ♡ ÷	☐ CHEMNAME 🎖 💠	□ BENEFITS 7	\$
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	

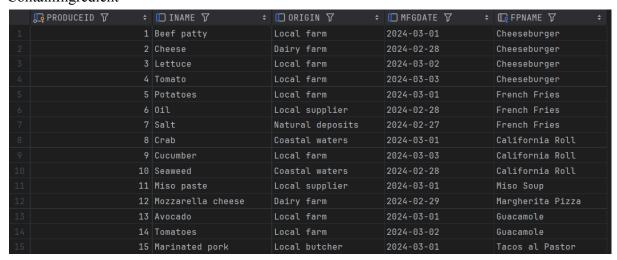
Group By:

Home.PHP Line: 374

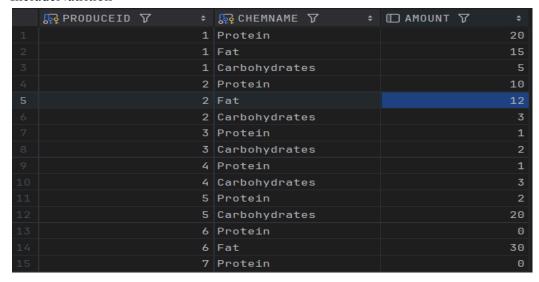
SELECT DISTINCT CN.FPNAME, SUM(INC.Amount) as suma FROM CONTAININGREDIENT CN,INCLUDENUTRITION INC WHERE CN.ProduceID = INC.ProduceID Group by CN.FPNAME

Before:

ContainIngredient



IncludeNutrition

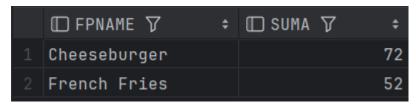


GUI:

Search Food with Most Nutrient

Search

After:



Group By Having:

Home.PHP line 345

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

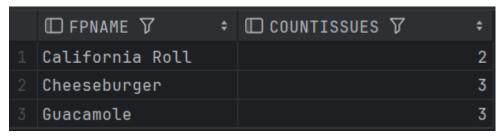


GUI:

Find out How Many Health Issues Food Can Cause

Issues Number: 1	\$
Search	

After:



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

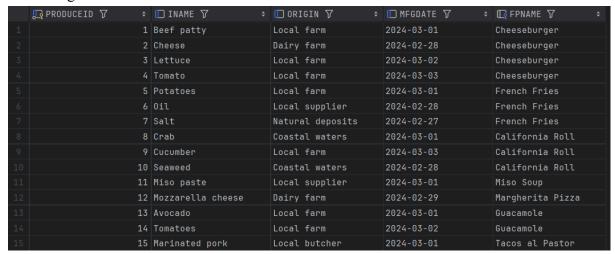
WHERE INut.ChemName = '\$nutrientName' GROUP BY FPS.FSID) AvgNutrition ON FS.FSID = AvgNutrition.FSID GROUP BY FS.FSName

Before:

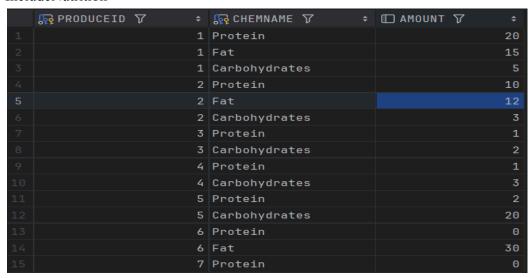
FoodProductSell

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

ContainIngredient



IncludeNutrition



GUI:

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

Nutrien	t: protein	
Search		

After:

	☐ FSNAME 🎖		‡
1	Tasty Burgers	4.8571428571428571428571428571428571428	6

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



Purchase

	ু PRODUCEID ÷	ঢ়ে FSID	□ ORDERID ÷
1	1	1	. 1
2	2	2 1	. 1
3	3	3 1	. 1
4	4	1	. 1
5	ţ	5 1	. 2
6	ć	5 1	. 2
7	5	7 1	. 2
8	8	3 2	3
9	ç	2	3
10	10	2	3
11	11	L 2	4
12	12	2 3	5
13	13	3 4	6
14	14	i 4	6
15	15	5 4	7

GUI:

Find the Food Services who Purchased All the Given Produce

Produce IDs (seperate by comma):				13,14,15						
Fir	nd									
After:										
	<u>∏</u> FSID		☐ FSNAME			☐ FSADDR	ESS			
1		4	Taco Haven			321 Elm S	treet,	Someville		