

CPSC 304 Project Cover Page

Milestone #: 4

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Group Number: 34

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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

Project Description:

Our database application is designed for the food and online delivery industry, focusing on the seamless management of interactions between customers, delivery drivers, and restaurants. This application enables customers to create and log into their accounts, specify dietary preferences, order food from restaurants that match their preferences, and review their past orders.

For reasons in maintaining simplicity to account for the short summer course time, we have decided to keep our app local to Vancouver. Behold, Vancouver Eats!

Schema Changes:

In our final schema, we changed the data type of the OrderID attribute to an INT since this allows us to compare IDs easier. Similarly, we also changed CustomerPhoneNum to be VARCHAR rather than CHAR, as comparisons with CHAR enforces the length, which unnecessarily complicates the code in the server.

Project Schemas:

Ingredient(IngredientName, IngredientType)
IngredientName: varchar, PK
IngredientType: varchar

Customer(CustomerID, CustomerName, CustomerAddress, CustomerPhoneNum)
CustomerID: varchar, PK
CustomerName: varchar
CustomerAddress: varchar, not null
CustomerPhoneNum: varchar

HasDietaryPreference(CustomerID, IngredientName, PreferenceType)
CustomerID: varchar, PK FK
IngredientName: varchar, PK FK
PreferenceType: varchar

Orders(OrderID, OrderDate, **CustomerID**, **LicenseNum**, **RestaurantAddress**)
OrderID: int, PK
OrderDate: date
CustomerID: varchar, FK
LicenseNum: varchar, FK
RestaurantAddress: varchar, FK

DeliveryPerson(LicenseNum, DeliveryPersonName, DeliveryPersonRating, PhoneNum)
LicenseNum: char[8], PK
DeliveryPersonName: varchar
DeliveryPersonRating: float
PhoneNum: char[10], CK unique

Vehicle(LicensePlateNum, InsuranceExpiryDate, Brand, VehicleModel, VehicleColour)
LicensePlateNum: varchar, PK
InsuranceExpiryDate: date
Brand: varchar
VehicleModel: varchar
VehicleColour: varchar

OwnsVehicle(LicenseNum, LicensePlateNum)
LicenseNum: char[8], PK FK
LicensePlateNum: varchar, PK FK

Restaurant(RestaurantAddress, **RestaurantName**, RestaurantRating, RestaurantPhoneNum)
RestaurantAddress: varchar, PK
RestaurantName: varchar, FK
RestaurantRating: float
RestaurantPhoneNum: char[10], CK unique

RestaurantCuisine(RestaurantName, RestaurantCuisineType)
RestaurantName: varchar, PK
RestaurantCuisineType: varchar

Menu(MenuName, **RestaurantAddress**, MealType)
MenuName: varchar, PK
RestaurantAddress: varchar, PK FK
MealType: varchar

MenuItem(MenuItemName, Calories)
MenuItemName: varchar, PK
Calories: int

MenuFeaturesItem(MenuItemName, MenuName, ItemPrice)
MenuItemName: varchar, PK FK
MenuName: varchar, PK FK
ItemPrice: float, not null

ItemMadeWith(MenuItemName, IngredientName)
MenuItemName: varchar, PK FK
IngredientName: varchar, PK FK

OrderContains(OrderID, MenuItemName)
OrderID: int, PK FK
MenuItemName: varchar, PK FK

Drink(MenuItemName, Volume, AlcoholContent)
MenuItemName: varchar, PK FK
Volume: int
AlcoholContent: float

RotationalItem(MenuItemName, StartDate, EndDate)
MenuItemName: varchar, PK FK
StartDate: date, not null
EndDate: date, not null

RotationalDrink(**MenuItemName**, Volume, AlcoholContent, StartDate, EndDate)
MenuItemName: varchar, PK FK
StartDate: date, not null
EndDate: date, not null
Volume: int
AlcoholContent: float

Tables:

+ CS304 Project Tables

Query Result Screenshots:

INSERT: Creating an Order, which would be inserted into the Orders table in the SQL database. [appService.js, line 360]

(items in cart, ready to make request to insert)

The screenshot displays a web application interface for a food menu and a shopping cart. The menu section lists various lunch combos with their respective prices. The cart section shows the items currently selected for purchase, including Pancakes and Garden Salad, with a subtotal of \$13.98. A 'CHECKOUT' button is located at the bottom right of the cart. To the right of the application, a browser console window is open, showing the log of the cart items being sent to the server. The log shows two objects: {Pancakes: 7.99} and {Pancakes: 7.99, Garden Salad: 5.99}, both originating from menu.js:83.

Item	Price
⊖ Dinner Feasts -- Chicken Curry	\$11.99
⊖ Lunch Combos -- Chicken Quesadilla	\$9.49
⊖ Lunch Combos -- Turkey Sandwich	\$8.49
⊖ Lunch Combos -- BLT Sandwich	\$7.99
⊖ Lunch Combos -- Lentil Soup	\$6.49
⊖ Lunch Combos -- Caesar Salad	\$6.99
⊖ Lunch Combos -- Fish and Chips	\$10.99
⊖ Lunch Combos -- Clam Chowder	\$7.99
⊖ Lunch Combos -- Garden Salad	\$5.99
⊖ Lunch Combos -- Vegetable Stir Fry	\$8.99

Cart

⊖ Pancakes	\$7.99
⊖ Garden Salad	\$5.99
SUBTOTAL: \$13.98	

CHECKOUT

Browser Console Log:

```
7.99 menu.js:83
{Pancakes: 7.99} menu.js:87
13.98 menu.js:83
{Pancakes: 7.99, Garden Salad: 5.99} menu.js:87
```

(status code 200 returned from server as confirmation that it has been inserted)

Name	×	Headers	Payload	Preview	Response	Initiator	>>
menu.html							
styles.css							
menu.js							
1							
insertOrder/							
		▼ General					
		Request URL:		http://localhost:50001/insertOrder/			
		Request Method:		POST			
		Status Code:		200 OK			
		Remote Address:		[::1]:50001			
		Referrer Policy:		strict-origin-when-cross-origin			
		▼ Response Headers		<input type="checkbox"/> Raw			
		Connection:		keep-alive			
		Content-Length:		2			
		Content-Type:		text/plain; charset=utf-8			
		Date:		Tue, 06 Aug 2024 02:49:10 GMT			
		Etag:		W/"2-nOO9QiTIwXgNtWtBJezz8kv3SLc"			
		Keep-Alive:		timeout=5			
		X-Powered-By:		Express			
		▼ Request Headers		<input type="checkbox"/> Raw			
		Accept:		*/*			
		Accept-Encoding:		gzip, deflate, br, zstd			

DELETE: Deleting one's account, which would subsequently delete the user's ingredients preferences by cascading [appService.js, line 109]

(deleting account from UI and receiving code 200)

Account

Hello 2!

[Home](#)
[Edit dietary preferences](#)
[View order history](#)
[Delete account](#)

localhost:50001 says
Successfully deleted 2

OK

Name	Status	Type	Initiator	Size	Time
account.html	304	document	Other	265 B	5 ms
account.js	304	script	account.html:27	266 B	14 ms
styles.css	304	stylesheet	account.html:6	265 B	13 ms
2	200	fetch	account.js:7	267 B	13 ms
2/	200	fetch	account.js:124	227 B	Pending

(database before and after account deletion, showing that user 2 had allergies to peanuts, and no longer existing in database afterwards)

```
[SQL>select * from hasdietarypreference where customerid = 2;]

CUSTOMERID INGREDIENTNAME
-----
PREFERENCETYPE
-----
2           Peanuts
Allergy

[SQL> select * from hasdietarypreference where customerid = 2;]

no rows selected

SQL> █
```

UPDATE: Updating ingredient preferences of the user. [appService.js, line 152]

Account

Hello bob!

[Home](#)

[Edit dietary preferences](#)

Select preference type ▾

Create new preference



Salmon

Allergy

✓ Favourite



Salt

Allergy ▾

[View order history](#)

[Delete account](#)

Account

Hello bob!

[Home](#)

[Edit dietary preferences](#)

Select preference type ▾

Create new preference



Salmon

Allergy ▾



Salt

Allergy ▾

[View order history](#)

[Delete account](#)

localhost:50001 says
Ingredient preference successfully updated

Elements Console Sources Network >>					
<input type="checkbox"/> Preserve log <input type="checkbox"/> Disable cache No throttling ▾ <input type="checkbox"/> Invert <input type="checkbox"/> Hide data URLs <input type="checkbox"/> Hide extension URLs					
GHR Doc CSS JS Font Img Media Manifest WS Wasm Other					
<input type="checkbox"/> Blocked response cookies <input type="checkbox"/> Blocked requests <input type="checkbox"/> 3rd-party requests					
10000 ms 20000 ms 30000 ms 40000 ms 50000 ms					
Name	Status	Type	Initiator	Size	Time
account.html	304	document	account.html:27	265 B	6 ms
account.js	304	script	account.html:27	266 B	21 ms
styles.css	304	stylesheet	account.html:6	265 B	18 ms
bob	200	fetch	account.js:7	287 B	119 ms
bob	200	fetch	account.js:46	227 B	Pending

SELECTION: Select MenuItem's in a menu associated with a specific Restaurant. Filter out menu items that contain an ingredient that a user is allergic to. [appService.js, line 190]

(All dietary preferences are set to “Favourite”)

Account

Hello 7!

[Home](#)

[Edit dietary preferences](#)

Ingredient

Select preference type

Create new preference

x

Broccoli

Favourite

x

Cheddar Cheese

Favourite

x

Chicken Breast

Favourite

x

Eggplant

Favourite

x

Ground Beef

Favourite

x

Lettuce

Favourite

x

Onions

Favourite

(Full Menu Shown (no filtering based on “Allergy” dietary preference))

← Back

Indian Spice - 777 Willow Rd

Recommended

Generate Recommendations

Menu

⊙ Dinner Feasts -- Eggplant Parmesan

\$12.49

⊙ Dinner Feasts -- Beef Steak

\$14.99

⊙ Dinner Feasts -- Chicken Curry

\$11.99

⊙ Dinner Feasts -- BBQ Ribs

\$15.99

⊙ Dinner Feasts -- Fettuccine Alfredo

\$13.99

⊙ Dinner Feasts -- Margherita Pizza

\$11.99

⊙ Dinner Feasts -- Spaghetti Bolognese

\$12.99

⊙ Lunch Specials -- Sushi Roll

\$8.49

⊙ Lunch Specials -- Grilled Chicken Salad

\$10.99

⊙ Lunch Specials -- Veggie Wrap

\$7.99

(Change “Chicken Breast” to “Allergy”)

Account

Hello 7!

[Home](#)
[Edit dietary preferences](#)

Select preference type

Create new preference

x

Broccoli

Favourite

x

Cheddar Cheese

Favourite

x

Chicken Breast

Allergy

x

Eggplant

Favourite

x

Ground Beef

Favourite

x

Lettuce

Favourite

x

Onions

Favourite

(Items containing “Chicken Breast” ingredient automatically filtered out when user views menu again)

← Back

Indian Spice - 777 Willow Rd

Recommended

Generate Recommendations

Menu

⊙ Dinner Feasts -- Eggplant Parmesan

\$12.49

⊙ Dinner Feasts -- Beef Steak

\$14.99

⊙ Dinner Feasts -- BBQ Ribs

\$15.99

⊙ Dinner Feasts -- Fettuccine Alfredo

\$13.99

⊙ Dinner Feasts -- Margherita Pizza

\$11.99

⊙ Dinner Feasts -- Spaghetti Bolognese

\$12.99

⊙ Lunch Specials -- Sushi Roll

\$8.49

⊙ Lunch Specials -- Veggie Wrap

\$7.99

(Arbitrarily set all dietary preferences to “Allergy”)

Account

Hello 7!

[Home](#)
[Edit dietary preferences](#)

Select preference type

Create new preference

x

Broccoli

Allergy

x

Cheddar Cheese

Allergy

x

Chicken Breast

Allergy

x

Eggplant

Allergy

x

Ground Beef

Allergy

x

Lettuce

Allergy

x

Onions

Allergy

(Menu further filtered)

← Back

Indian Spice - 777 Willow Rd

Recommended

✦ Generate Recommendations

Menu

⊙ Dinner Feasts -- BBQ Ribs

\$15.99

⊙ Dinner Feasts -- Fettuccine Alfredo

\$13.99

⊙ Lunch Specials -- Sushi Roll

\$8.49

⊙ Lunch Specials -- Veggie Wrap

\$7.99

PROJECTION: Filtering out what attributes to view in the order history. [appService.js, line 244]

Show Details

Order Date

✓

Items in Order

✓

Totals

✓

Submit

Tasty Bites

2024-08-06T07:00:00.000Z

Items:

Breakfast Burrito

Margherita Pizza

Total: 17.98

Mexican Fiesta

2024-08-06T07:00:00.000Z

Items:

Shrimp Tacos

Total: 11.49

Indian Spice

2024-08-06T07:00:00.000Z

Items:

Chicken Curry

Spaghetti Bolognese

Total: 24.98

Show Details

Order Date

✓

Items in Order

□

Totals

✓

Submit

Tasty Bites	Mexican Fiesta	Indian Spice
2024-08-06T07:00:00.000Z	2024-08-06T07:00:00.000Z	2024-08-06T07:00:00.000Z
Total: 17.98	Total: 11.49	Total: 24.98

Show Details

Order Date

✓

Items in Order

□

Totals

□

Submit

Tasty Bites	Mexican Fiesta	Indian Spice
2024-08-06T07:00:00.000Z	2024-08-06T07:00:00.000Z	2024-08-06T07:00:00.000Z

JOIN: Retrieving menu items and selecting the items. [appService.js, line 190]

← Back

Tasty Bites - 123 Main St

Recommended

Generate Recommendations

Menu

⊕ Breakfast Specials -- Breakfast Burrito\$5.99

⊕ Breakfast Specials -- Avocado Toast\$6.99

⊕ Breakfast Specials -- Pancakes\$7.99

⊕ Dinner Feasts -- Spaghetti Bolognese\$12.99

⊕ Dinner Feasts -- Margherita Pizza\$11.99

⊕ Dinner Feasts -- Eggplant Parmesan\$12.49

⊕ Dinner Feasts -- BBQ Ribs\$15.99

⊕ Dinner Feasts -- Fettuccine Alfredo\$13.99

⊕ Dinner Feasts -- Chicken Curry\$11.99

AGGREGATION WITH GROUP BY: Finding the totals of each order in history. [appService.js, line 269]

Show Details

Order Date

Items in Order

Totals

Submit

Tasty Bites

Total: 17.98

Mexican Fiesta

Total: 11.49

Indian Spice

Total: 24.98

AGGREGATION WITH HAVING: Finding the totals of orders that are greater than a threshold. [appService.js, line 315]

(order history when the threshold is set at 1)

Orders Greater Than:

1

Show Details

Order Date ☐

Items in Order ☐

Totals ☒

Submit

Tasty Bites

Total: 17.98

Mexican Fiesta

Total: 11.49

Indian Spice

Total: 24.98

(order history when the threshold is set at 17)

Orders Greater Than:

17

Show Details

Order Date ☐

Items in Order ☐

Totals ☒

Submit

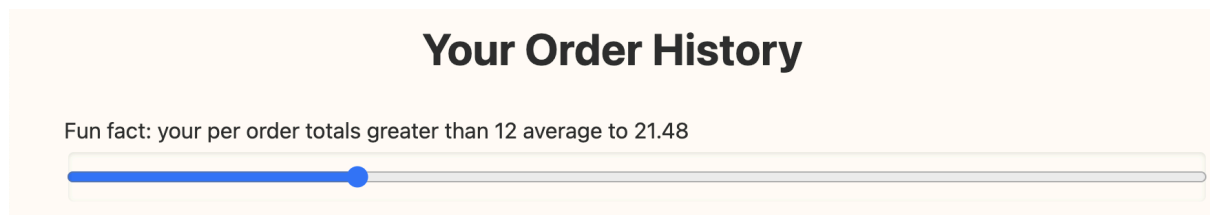
Tasty Bites

Total: 17.98

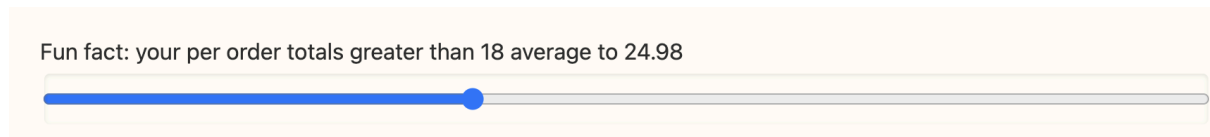
Indian Spice

Total: 24.98

NESTED AGGREGATION WITH GROUP BY: Calculates the average of orders given a threshold. [appService.js, line 289]



(after raising it to 18)



DIVISION: Select the MenuItemName of a MenuItem at a restaurant that contains ALL of a user's favourite ingredients. [appService.js, line 212]

(No "Favourites" under dietary preferences)

Account

Hello 1!

[Home](#)
[Edit dietary preferences](#)

Select preference type ▾

Create new preference

x

Eggplant

Allergy ▾

x

Eggs

Allergy ▾

(Every item is recommended because user has no "Favourite" preference)

← Back

Indian Spice - 777 Willow Rd

Recommended

✦ Generate Recommendations

👍 BBQ Ribs

👍 Beef Steak

👍 Chicken Curry

👍 Fettuccine Alfredo

👍 Grilled Chicken Salad

👍 Margherita Pizza

👍 Spaghetti Bolognese

👍 Sushi Roll

👍 Veggie Wrap

Menu

🕒 Dinner Feasts -- Margherita Pizza

\$11.99

🕒 Dinner Feasts -- Beef Steak

\$14.99

🕒 Dinner Feasts -- Chicken Curry

\$11.99

🕒 Dinner Feasts -- BBQ Ribs

\$15.99

(Change eggplant preference to “Favourite”)

Account

Hello 1!

[Home](#)

[Edit dietary preferences](#)

Ingredient

Select preference type ▾

Create new preference

x

Eggplant

Favourite ▾

x

Eggs

Allergy ▾

(Only eggplant parmesan is recommended)

← Back

Indian Spice - 777 Willow Rd

Recommended

✦ Generate Recommendations

👍 Eggplant Parmesan

Menu

🕒 Dinner Feasts -- Eggplant Parmesan

\$12.49

🕒 Dinner Feasts -- Beef Steak

\$14.99

🕒 Dinner Feasts -- Chicken Curry

\$11.99

🕒 Dinner Feasts -- BBQ Ribs

\$15.99