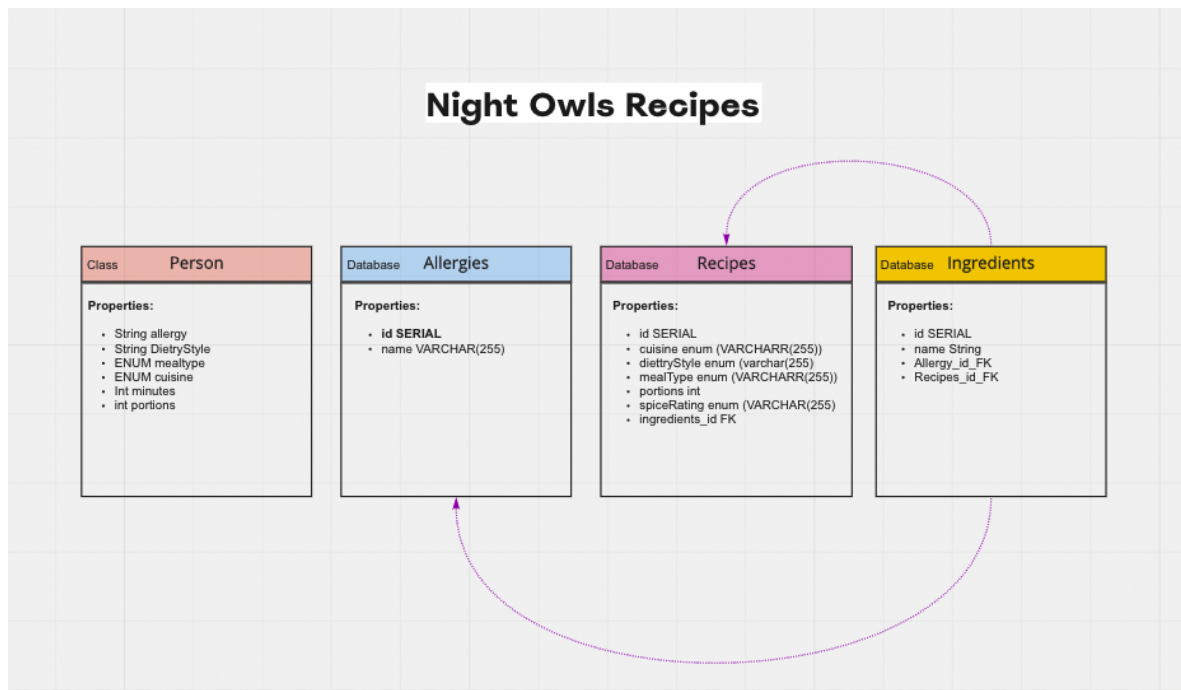


Server-Side Project: Night Owls Recipes API

Project Goals - User has to be able to interact with API to at least make GET & POST requests.

https://github.com/brightnetwork-technology-academy/bnta_cohort3/blob/main/projects/server_side.md

API Goal - Client will be able to search for recipes based on allergy input.



To-Do List (by day)

Date	Plan
Wed, 10th Nov	<ul style="list-style-type: none">Plan API - map out structure ✓Build API - build classes, interfaces ✓Implement Spring Boot functions ✓Begin researching recipes ✓Search recipes: 5 for 14 allergies and spanning different dietary requirements, (start wed evening if possible)

Thurs, 11th Nov	<ul style="list-style-type: none"> • Create java packages and classes ✓ • Set up spring boot ✓ • Connect to database ✓
Fri, 12th Nov	<ul style="list-style-type: none"> • Figure out how to add enums to database. ✓ • Sort out Add, Get by Id, Delete and Update. ✓ • Implement ingredients and foreign key tables into database. ✓ • Carry on searching recipes and add to cuisine enums. ✓
Sat, 13th Nov	<ul style="list-style-type: none"> • Figure out SQL queries and business logic in java. ✓ • Carry on searching recipes and add to cuisine enums. ✓
Sun, 14th Nov	<ul style="list-style-type: none"> • Format recipe_ingredients as a list ✓ • Filter by allergy ✓ • If filter by allergy we have code for every other filter
Mon 15th Nov	<ul style="list-style-type: none"> • All business logic should be done and API completed. ✓
Tue, 16th Nov	<ul style="list-style-type: none"> • Unit Testing & Mocking ✓
Wed, 18th Nov	<ul style="list-style-type: none"> • Create a powerpoint for presentation day. ✓
Thurs, 19th Nov	<ul style="list-style-type: none"> • Presentation day ✓

Recipe Table:

Recipes catering to each allergy type.

Items in **red** -> what each recipe cannot contain for each allergy.

Pls Format Recipes as JSON: {"name": "Mac & Cheese"}

4x MealType Enum: BREAKFAST, LUNCH, DINNER, SNACK, DESSERT

4x SpiceRating Enum: HOT, MEDIUM, MILD, SWEET

Cuisine Enums: We add as we find recipes.

name cuisine vegetarian vegan meatOnly pescatarian mealType spiceRating cookingTime instructions	
MOLLUSCS ALLERGEN - Gastropods (including Abalone , Limpet , Snail , Whelk), bivalves (including Oyster , Mussel , Scallop) and cephalopods (including Squid & Octopus)	
{ "name": "Quadruple Cheesy to Death Mac & Cheese", "cuisine": "ITALIAN",	{ "name": "British Empire's Ultimate Apple Pie" "cuisine": "BRITISH"

<p>"vegetarian": true, "vegan": true, "meatOnly": false, "pescatarian": false, "mealType": "DINNER", "spiceRating": "MILD", "cookingTime": 20, "instructions": "1) Boil the pasta, drain. \n 2) Make the cheese sauce by combining butter, and flour, then whisking in the milk products. \n 3) Cook the sauce until it's nice and thick. \n 4) Add in shredded cheeses, stir well. \n 5) Combine cheese sauce with cooked pasta. \n 6) Transfer half of the mac and cheese to a baking dish, sprinkle with more shredded cheese. \n 7) Top with the rest of the mac and cheese, top with more shredded cheese. \n 8) Bake to thoroughly enjoy!" }</p> <p>Ingredients: { Cheddar Mozzarella Gruyere Gouda Pasta Butter Flour }</p>	<p>"vegetarian": true, "vegan": false, "meatOnly": false, "pescatarian": false, "mealType": "DESSERT", "spiceRating": "SWEET", "cookingTime": 150, "instructions": "1) Peel and slice 1kg apples. \n 2) Mix 225g butter and 50g sugar in a large bowl. \n 3) Break in a whole egg and a yolk (keep the white for glazing later). Beat together for just under 1 min – it will look a bit like scrambled egg. \n 4) Now work in the flour with a wooden spoon, a third at a time, until it's beginning to clump up, then finish gathering it together with your hands. \n 5) Gently work the dough into a ball, wrap in cling film, and chill for 45 mins. Now mix the 140g/5oz sugar, the cinnamon and flour for the filling in a bowl that is large enough to take the apples later. \n 6) After the pastry has chilled, heat the oven to 190C/fan 170C/gas 5. Lightly beat the egg white with a fork. Cut off a third of the pastry and keep it wrapped while you roll out the rest, and use this to line a pie tin – 20-22cm round and 4cm deep – leaving a slight overhang. \n 7) Roll the remaining third to a circle about 28cm in diameter. Pat the apples dry with kitchen paper, and tip them into the bowl with the cinnamon-sugar mix. Give a quick mix with your hands and immediately pile high into the pastry-lined tin. \n 8) Brush a little water around the pastry rim and lay the pastry lid over the apples pressing the edges together to seal. Trim the edge with a sharp knife and make 5 little slashes on top of the lid for the steam to escape. (Can be frozen at this stage.) \n 9) Brush it all with the egg white and sprinkle it with caster sugar. Bake for 40-45 mins, until golden, then remove and let it sit for 5-10 mins. \n 10) Sprinkle with more sugar and serve while still warm from the oven with softly whipped cream. \n 11) Beware - it's a diabetes trap." }</p> <p>Ingredients: Apples Sugar Cinnamon Flour Butter Eggs Whipped Cream</p>
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EGGS ALLERGEN - Consumption of poultry is not problematic. Just **Egg**.

<p>{ "name": "Hummus", "cuisine": "ISRAELI", "vegetarian": true, "vegan": true, "meatOnly": false, "pescatarian": false, "mealType": "SNACK", "spiceRating": 2, "cookingTime": 10, "instructions": "1) Drain the chickpeas 2) Bake garlic in oven until soft and remove from skin\n 3) Add ingredients to a food processor and blend" }</p> <p>Ingredients - CHICKPEAS, LEMON, TAHINI(SESAME), GARLIC, OLIVE OIL</p>	<p>{ "name": "Vietnamese Lemongrass Chicken", "cuisine": "VIETNAMESE", "vegetarian": false, "vegan": false, "meatOnly": true, "pescatarian": false, "mealType": "LUNCH", "spiceRating": "MEDIUM", "cookingTime": 25, "instructions": "1) Cut 4 chicken thighs in bite sizes and set aside. \n 2) Pill first and second layers of ½ a lemongrass as needed; thinly slice and very finely chop it. This step is very important for pleasant texture of lemongrass. Set aside. \n 3) Roughly chop 4 cloves of garlic and 2 chilies and thinly slice one shallot. Set aside. \n 4) In a small mixing bowl, add all sauce ingredients and whisk until 2 tbsp sugar has dissolved. }</p>
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	<p>Set aside. \n 5) Heat a wok over high heat and add oil; swirl to coat. Add chicken, skin side down and cook for 5 minutes without touching. This way chicken skin will turn out nice golden brown and crispy. Turn it over and cook for an additional 1 to 2 minutes or until the chicken is fully cooked. \n 6) Turn off heat for now and remove excess oil from wok by scooping out with a spoon to another bowl. Leave only 2 Tbs. oil in wok to keep cooking with. \n 7) Turn your stove back to high heat and add lemongrass, garlic, chili and shallot into the wok. Stir fry for 1 to 2 minutes or until all the vegetables are softened and you can smell a beautiful aroma. \n 8) Add in sauce we made earlier and stir fry until sauce has thickened, chicken's coated evenly with sauce, about 1 minute. Remove from heat. \n 9) Serve with warm cooked Jasmine rice, sliced cucumber, and some fresh coriander."</p> <p>}</p> <p>Ingredients:</p> <p>Chicken Lemongrass Garlic Chili Shallot Oil Fish Sauce Sugar Pepper Coriander Rice Cucumber</p>
FISH ALLERGEN - Allergic reaction caused by fish muscle protein parvalbumin. Fish: Pollock, Carp, Cod, Dogfish, Mackerel, Salmon, Sole, Tuna.	
<pre>{ "name": "Grilled Cheese and Scrambled Egg", "cuisine": "BRITISH", "vegetarian": true, "vegan": false, "meatOnly": false, "pescatarian": false, "mealType": 0, "spiceRating": 2, "cookingTime": 20, "instructions": "1) Whisk eggs, cayenne and salt in a small bowl \n 2) Heat butter in a pan, and add eggs to cook for 1 minute \n 3) Divide cheese between 2 slices of bread and top with egg mixture. Close up sandwiches \n 4) Toast sandwiches until golden brown, about 3 minutes per side!" }</pre> <p>Ingredients: eggs, cheese, bread, salt, cayenne</p>	<pre>{ "name": "Indian Sweet Potato Pancakes", "cuisine": "INDIAN", "vegetarian": true, "vegan": true, "meatOnly": false, "pescatarian": false, "mealType": 0, "spiceRating": 2, "cookingTime": 15, "instructions": "1) Mix 1.5 cups grated sweet potato, 1.5 tsp garam masala, 0.5 tsp salt and 0.5 cup scallions finely chopped together in bowl \n 2) Add a little oil as a binder \n 3) Drop on hot skillet and cook for about 5 min on medium heat, flip and cook until brown" }</pre> <p>Ingredients: oil, salt, sweet potato, garam masala, scallions</p>
SEEDS ALLERGEN - Buckwheat, Mustard Seed, Poppy Seed, Pumpkin Seed, Sesame Seed & Sunflower Seed	
<pre>{ "Name": "Darania's Pesky Pesto Pasta" "Cuisine": ITALIAN, "vegetarian": true, "vegan": true, "meatOnly": false, "pescatarian": false, "mealType": LUNCH, "spiceRating": MILD, }</pre>	<pre>{ "Name": "Easy Beef Hotpot" "Cuisine": BRITISH, "vegetarian": false, "vegan": false, "meatOnly": true, "pescatarian": false, "mealType": DINNER, "spiceRating": MEDIUM, }</pre>

<p>"cookingTime": 10, "instructions": "1) Boil Pasta in water. \n 2) In a mixer, add basil leaves, garlic, salt, pepper and cheese and mix. \n 3) Stir in pesto sauce with pasta and you're finished!" }</p> <p>Ingredients:</p> <p>Pasta Garlic Basil Salt Pepper</p>	<p>"cookingTime": 45, "instructions": "1) Cut each onion into eight wedges. Roughly chop the carrots and cut the potatoes into large chunks. Put the kettle on. \n 2) Heat a large non-stick pan, add the mince and fry quickly, stirring all the time, until evenly browned. Crumble in the stock cubes and mix well. Add the prepared vegetables, stir them around, then pour in 900ml/1½ pints of hot water from the kettle. Bring to the boil. \n 3) Reduce the heat, cover and simmer for 25-30 minutes, until the veg are tender. Stir in the baked beans and a generous splash of Worcestershire sauce and heat through. Taste and add salt and pepper if necessary. \n 4) Scatter over the parsley, then ladle the hotpot into bowls. Put the Worcestershire sauce bottle on the table in case anyone fancies a bit more spice." }</p> <p>Ingredients: onion, carrot, potato, beef, beef stock, baked beans, worcestershire sauce, parsley</p>
MILK ALLERGEN - Cow, Goat and Sheep Milk only.	
<pre>{ "name": "Korean Pancakes", "Cuisine": "KOREAN", "vegetarian": true, "vegan": false, "meatOnly": false, "pescatarian": false, "mealType": "SNACK", "spiceRating": 2, "cookingTime": 20, "instructions": "1) Grate Courgette, Garlic and Spring Onion 2) \n Beat eggs, flour and water into a silky dough \n 3) Mix in the vegetables 4) Fry a ladle full of the mixture until cooked" }</pre> <p>Ingredients - COURGETTE, SPRING ONION, GARLIC, SOY SAUCE, FLOUR, EGG</p>	<pre>{ "name": "Authentic Thai Green Curry Made by Thai Mums", "cuisine": "THAI", "vegetarian": false, "vegan": false, "meatOnly": true, "pescatarian": false, "mealType": "LUNCH", "spiceRating": "HOT", "cookingTime": 60, "instructions": "1) Peel the garlic and shallots, and slice the galangal and coriander roots into small pieces.\n 2) Pound the curry paste: garlic, green chillies, shallots, galangal, coriander roots, kaffir lime peel, lemongrass, coriander seed, cumin and shrimp paste. \n 3) Chop up the entire chicken into bite sized pieces and boil for 10 mins with pounded curry paste and lime leaves until chicken is tender. \n 4) Eat with rice. }</pre> <p>Ingredients:</p> <p>Chicken Coconut Cream Eggplant Basil Chilli Lime Leaf Salt Garlic Shallot Galangal Coriander Root Kaffir Lime Lemongrass Pepper Coriander Seeds Cumin Shrimp Paste Rice</p>
LEGUMES ALLERGEN - Peanut, Chickpea, Lentil, Lupin, Pea, Soybean, Soy	
<pre>{ "name": "Baked ratatouille and goat's cheese",</pre>	<pre>{ "name": "Chocolate Chip-Pumpkin Cookies",</pre>

<pre> "cuisine": "FRENCH", "vegetarian": true, "vegan": false, "meatOnly": false, "pescatarian": false, "mealType": "DINNER", "spiceRating": "MILD", "cookingTime": 70, "instructions": "1) Fry 2 onions (chopped) and 2 garlic cloves (chopped) \n 2) Add 2 diced aubergines and 2 diced red peppers \n 3) Stir in 1tsp paprika and 500ml passata, then allow to simmer until thick \n 4) Tip into overproof dish and cover with cheese sauce \n 5) Crumble over 200g goat's cheese and arrange 4 sliced courgettes on top \n 6) Bake for 30mins" } Ingredients: onion, garlic, aubergine, pepper, paprika, passata, goat's cheese, cheese sauce, courgette </pre>	<pre> "cuisine": "AMERICAN", "vegetarian": true, "vegan": false, "meatOnly": true, "pescatarian": false, "mealType": "DESSERT", "spiceRating": "SWEET", "cookingTime": 30, "instructions": "1) Preheat oven to 180 degrees C. Line baking sheets with parchment paper and set aside. . \n 2) In a medium mixing bowl, use a whisk to combine 2 cups sifted flour, 2 tsp baking powder, 1tsp baking soda, 0.5 tsp salt, 1tsp pumpkin pie spice and 1tsp cinnamon. \n 3) In a separate mixing bowl, mix together 0.25 cup white sugar, 0.25 cup brown sugar and 0.5 cup oil. Add 0.3 cup applesauce, 0.5 tbsp vanilla extract and 1 cup pumpkin purée. \n 4) Slowly add the dry ingredients into the wet ingredients. Stir with a large spoon until you no longer see raw flour. \n 5) Fold in 0.5 cup chocolate chips \n 6) Use a small cookie scoop to scoop cookie dough onto your parchment-lined cookie sheet and flatten out the cookie dough \n 7) Bake on the centre rack of the preheated oven for 8-10 minutes. \n 8) Let each sheet of baked cookies sit on the pan for 3-5 minutes before moving them to a wire rack" } Ingredients: flour, baking powder, baking soda, salt, pumpkin pie spice, cinnamon, applesauce, vanilla extract, pumpkin purée, white sugar, brown sugar, chocolate chips </pre>
CEREALS & GRAINS ALLERGEN - Celiac Disease, reaction to gluten protein. Wheat related crops (Barley, Oats, Rye, Wheat, Rice, Corn, Maize). No cure, lifelong avoidance of gluten containing products necessary.	
<pre> { "name": "Gluten-free Brownies", "cuisine": "BRITISH", "vegetarian": true, "vegan": true, "meatOnly": false, "pescatarian": false, "mealType": "DESSERT", "spiceRating": "SWEET", "cookingTime": 20, "instructions": "1) Heat oven to 180C/160C fan/gas 4. Butter a 30 x 20cm non-stick tin with butter and line the base with non-stick baking parchment. \n 2) Fill a small saucepan a third full with water, bring to a simmer and put a snug-fitting heatproof bowl on top of it. Add the butter and chocolate and gently melt over a low heat, stirring occasionally. Be careful not to let it catch and burn on the bottom. Remove from the heat and leave to cool a little. \n 3) Beat the eggs and sugar together using an electric whisk for 8-10 mins or until thick enough to leave a trail. Gently fold through the cooled melted chocolate and vanilla, followed by the flour, cocoa and salt. Finally, fold through the chocolate chunks. Pour the brownie batter into the lined tin, place in the centre of the oven and bake for 30-35 mins. \n 4) Leave to cool a little in the tin before cutting into 12 squares." } Ingredients: butter, chocolate, egg, sugar, vanilla extract, gluten-free plain flour, cocoa powder </pre>	<pre> { "name": "Rhubarb & Star Anise Sorbet", "cuisine": "BRITISH", "vegetarian": true, "vegan": true, "meatOnly": false, "pescatarian": false, "mealType": "DESSERT", "spiceRating": "SWEET", "cookingTime": 20, "instructions": "1) Put the rhubarb in a saucepan and add the sugar, 75ml water and the liquid glucose. Scrape the seeds from the vanilla pod and add to the pan (with the pod) along with the star anise. \n 2) Place over a medium-high heat and bring to the boil, stirring occasionally. Reduce the heat slightly and cook for 15 mins until the sugar has dissolved and the fruit is soft and starting to break down. Remove from the heat and fish out the vanilla pod and star anise. Purée in a blender. \n 3) Pour the mixture through a fine mesh strainer, removing any remaining stringy bits of rhubarb. Transfer to a jug and stir in the lemon juice and vodka, if using. Cover and put in the fridge until fully chilled before churning in an ice cream machine, according to the manufacturer's instructions. Scrape the sorbet into an airtight container and freeze for at least 3 hrs before serving. Will keep, frozen, for up to 1 month." } Ingredients: rhubarb, sugar, glucose, vanilla extract, star anise, lemon, vodka </pre>

CRUSTACEANS ALLERGEN - Comprises of Shrimp, Prawn, Crab, & Lobster

```
{
  "name": "Pork Stew with Sweet Potatoes and Black Bean",
  "cuisine": "MEXICAN",
  "vegetarian": false,
  "vegan": false,
  "meatOnly": true,
  "pescatarian": false,
  "mealType": "DINNER",
  "spiceRating": "MILD",
  "cookingTime": 60,
  "instructions": "1) In large saucepan, saute 2 onions until they are soft. \n 2) Add 2 lbs pork and cook on medium high until lightly browned. \n 3) Add 2-4 tsp chili powder, 2tbsp honey, salt and pepper \n 4) Add 2-3 lbs sweet potatoes and 1.5 cups of orange juice. Cover with water \n 5) Simmer until sweet potatoes are soft \n 6) Knead 2 tbsp oil and 2tbsp flour into a small ball \n 7) Add 15 oz black beans \n 8) Cook until thickened"
}
```

Ingredients: vegetable oil, onion, pork, chilli powder, honey, sweet potatoes, orange juice, flour, black beans, salt, pepper

```
{
  "name": "Where's the Lamb Sauce?",
  "cuisine": "GERMAN",
  "vegetarian": false,
  "vegan": false,
  "meatOnly": true,
  "pescatarian": false,
  "mealType": "DINNER",
  "spiceRating": "MILD",
  "cookingTime": 45,
  "instructions": "1) In a medium skillet, heat 1 tsp of the oil. Season the lamb with salt and pepper. Add the lamb to the skillet, fat side down, and cook over moderately high heat until richly browned, about 3 minutes. \n 2) Turn the lamb fat side up and cook for 2 minutes longer. Transfer the skillet to the oven and roast the rack for about 20 minutes \n 3) Add 2 tps of oil and the shallots to the skillet and cook over moderate heat until softened. \n 4) Add 0.25 cup wine and simmer until reduced by half, about 2 minutes. Add 0.25 cup chicken stock and bring to a simmer. Remove the skillet from the heat. \n 5) Stir in the 1tsp whole grain mustard and 2 tsp Dijon mustard and the thyme. \n 6) Carve the lamb into chops and arrange on warmed plates. Spoon the sauce over the lamb and serve."
}
```

Ingredients: vegetable oil, lamb, dry white wine, whole grain mustard, dijon mustard, thyme, salt, pepper, chicken stock

SPICES & HERB ALLERGEN - Mustard, Celery

```
{
  "name": "Vegan ginger loaf cake",
  "cuisine": "BRITISH",
  "vegetarian": true,
  "vegan": true,
  "meatOnly": false,
  "pescatarian": false,
  "mealType": "DESSERT",
  "spiceRating": "SWEET",
  "cookingTime": 60,
  "instructions": "1) Mix 300g of flour with 50g sugar, 1tsp baking powder, and ground ginger \n 2) Add water and beat mix until smooth \n 3) pour cake mixture into tin and bake for c.45mins \n 4) Sieve icing sugar, add ginger syrup and mix in lemon juice \n 5) Drizzle over the cake "
}
```

Ingredients: flour, sugar, baking powder, ginger, icing sugar, lemon

```
{
  "name": "Thai red curry noodle soup",
  "cuisine": "THAI",
  "vegetarian": false,
  "vegan": false,
  "meatOnly": true,
  "pescatarian": false,
  "mealType": "DINNER",
  "spiceRating": "HOT",
  "cookingTime": 50,
  "instructions": "1) Fry chicken 300g diced \n 2) Add garlic, pepper, onion \n 3) Stir in curry paste, ginger, and water \n 4) Stir in coconut milk \n 5) Stir in fish sauce, rice noodles, and sugar "
}
```

Ingredients: chicken, garlic, pepper, onion, curry paste, ginger, coconut milk, rice noodles, fish sauce, sugar

NUTS ALLERGEN - Anything in ingredients involving the key word Nut. But also Almond, Brazil Nut, Cashew Nut, Chestnut, Hazelnut, Macadamia Nut, Pecan Nut, Pine Nut, Pistachio, Walnut

```
{
  "name": "Apple Turkey Meatballs",
  "cuisine": "AMERICAN",
}
```

```
{
  "name": "Tamara's Veggie Spagbol",
  "cuisine": "BRITISH",
}
```

<p>"vegetarian": false, "vegan": false, "meatOnly": true, "pescatarian": false, "mealType": "DINNER", "spiceRating": "MILD", "cookingTime": 20, "instructions": "1) Mix 100g grated apple with 200g ground turkey and 1tsp salt \n 2) Make small meatballs \n 3) Bake for c.20 minutes" }</p> <p>Ingredients: salt, turkey, apple,</p>	<p>"vegetarian": true, "vegan": false, "meatOnly": false, "pescatarian": true, "mealType": "LUNCH", "spiceRating": "MILD", "cookingTime": 20, "instructions": "1) Chop and fry onions, garlic, and courgette with preferred spices (recommended: chilli powder, cumin, chilli flakes) \n 2) Add red wine (do NOT skip the wine!), vegetable stock and passata to simmer \n 3) Boil pasta and add quorn to the sauce \n 4) Drain pasta and serve with a hearty serving of sace" }</p> <p>Ingredients: Tomato passata, garlic, onion, quorn, pasta, red wine, vegetable stock</p>
FRUITS Allergen - Acerola, Apple, Apricot, Banana, Cherry, Coconut, Date, Fig, Grape, Kiwi, Gooseberry, Lychee, Mango, Melon, Orange, Peach, Pear, Persimmon, Pineapple, Pomegranate, Prune, Plum, Strawberry & Tomato.	
<p>{ "name": "Plov", "Cuisine": "UZBEK", "vegetarian": false, "vegan": false, "meatOnly": true, "pescatarian": false, "mealType": "DINNER", "spiceRating": 2, "cookingTime": 90, "instructions": "1)Prepare the ingredients by washing and soaking the rice, chopping the lamb into small chunks and dicing the onion and carrots \n 2)Fry the meat, onion and carrots in oil \n 3) Add the rice, 2 entire bulbs of garlic, and water to simmer for 45 mins.\n 4)Serve with chopped chillis. " } Ingredients - LAMB, RICE, ONION, CARROT, GARLIC, CHILLI</p>	<p>{ "name": "Tamara's Posh Garlic Bread", "Cuisine": "BRITISH", "vegetarian": true, "vegan": false, "meatOnly": false, "pescatarian": true, "mealType": "SNACK", "spiceRating": 2, "cookingTime": 45, "instructions": "1)Roast 3 heads of garlic in the oven, then remove each bulb into a bowl \n 2)Blend the roasted garlic with lemon juice and olive oil \n 3) Slice the sourdough bread and lightly toast.\n 4)Spread the garlic paste across the sourdough, grate parmesan over and cook in the oven until the cheese has melted. " } Ingredients - GARLIC, PARMESAN, SOURDOUGH BREAD, LEMON, OLIVE OIL</p>
VEGETABLE Allergen - Asparagus, Avocado, Bell Pepper, Cabbage, Carrot, Lettuce, Potato, Pumpkin, Turnip, Zucchini, Courgette.	
<p>{ "name": "Chickpea Curry", "cuisine": "INDIAN", "vegetarian": true, "vegan": true, "meatOnly": false, "pescatarian": false, "mealType": "DINNER", "spiceRating": "MEDIUM", "cookingTime": 25, "instructions": "1) Fry 50g onions and 2 cloves garlic \n 2) Add 400g chopped tomatoes and 400g chickpeas \n 3) Simmer, add 100g spinach \n 4) Cook portion of rice " } Ingredients: onion, garlic, chickpeas, coconut milk, spinach, chopped tomatoes, rice</p>	<p>{ "name": "Katsu Chicken", "Cuisine": "JAPANESE", "vegetarian": false, "vegan": false, "meatOnly": true, "pescatarian": false, "mealType": "DINNER", "spiceRating": 2, "cookingTime": 45, "instructions": "1) Make sauce by frying onions, garlic, ginger and then adding spices and flour.\n 2) Once flour has cooked, add a stock of your choice, coconut milk, and soy sauce. Cook for 15 mins.\n 3)Coat chicken in flour, then egg and then panko crumb then fry until golden.\n 4)Plate the meal with the chicken atop a bed of rice and strain the curry sauce over the top." } Ingredients - CHICKEN, RICE, ONION, GARLIC, GINGER, COCONUT MILK, SOY SAUCE, BROWN SUGAR, TURMERIC, CURRY POWDER, FLOUR, EGG, PANKO, STOCK</p>
SULPHUR DIOXIDE/SULPHITES ALLERGEN -Dried Fruit, Pickled Vegetable, Sausage, Fruit, Cider, Vinegar, Wine. Maybe	

just put in a keyword Sulphite .	
<pre>{ "name": "Smoked mackerel and Leek hash", "cuisine": "BRITISH", "vegetarian": false, "vegan": false, "meatOnly": false, "pescatarian": true, "mealType": "DINNER", "spiceRating": "MILD", "cookingTime": 30, "instructions": "1) Microwave 250g of diced potato \n 2) Fry 200g of leek, then add potato and mackerel \n 3) Make 4 indents in pan and crack an egg into each \n 4) Cook for 6-8 minutes " }</pre> <p>Ingredients: potato, leek, smoked mackerel, eggs</p>	<pre>{ "name": "Pancetta Wrapped Mussels?", "cuisine": "FRENCH", "vegetarian": false, "vegan": false, "meatOnly": true, "pescatarian": false, "mealType": "LUNCH", "spiceRating": "MILD", "cookingTime": 35, "instructions": "1) In a large pot, bring 0.25 cup wine to a boil. Add 4 large mussels, cover and cook over high heat until they open, about 4 minutes. \n 2) Using a slotted spoon, transfer the mussels to a bowl; discard any that do not open. Strain the cooking liquid into a small bowl. \n 3) Remove the mussels from their shells. Unroll 110g pancetta slices and cut them into 3-inch-long strips. Arrange the strips on a work surface. Place a basil leaf at the base of each strip, top with a mussel and roll up. Thread the mussels onto skewers.\n 4) Brush the skewers with some of the mussel cooking liquid. Roast the mussels in a cast-iron skillet in the upper third of the oven, or grill over high heat, turning once, until lightly charred and crisp, about 2 minutes. \n 5) Brush the cooked mussels with the cooking liquid a second time and serve right away." }</pre> <p>Ingredients: pancetta, mussels, dry white wine, basil, salt, pepper</p>
OTHER Allergen - Beef, Chicken, Frog, Honey, Bee Venom, Mushroom, Textured Mycoprotein (Quorn).	
<pre>{ "name": "Better-than-the-takeaway Sesame Toast", "cuisine": "CHINESE", "vegetarian": false, "vegan": false, "meatOnly": false, "pescatarian": true, "mealType": "SNACK", "spiceRating": "2", "cookingTime": 25, "instructions": "1) Blend together prawns, garlic, ginger, spring onion and oil, in a separate bowl whisk an egg. \n 2) Brush a slice of bread with oil on both sides and spread the prawn mixture on one side. Brush the egg on top of the prawn side and cover with sesame seeds. \n 3) Fry in oil on the prawn side first then flip..Serve immediately." }</pre> <p>Ingredients: Prawn, Bread, Garlic, Ginger, Spring onion, SESAME SEEDS, SESAME OIL, egg</p>	<pre>{ "name": "Waffly Waffle McWaffleFace", "cuisine": "BRITISH", "vegetarian": true, "vegan": true, "meatOnly": false, "pescatarian": false, "mealType": "DESSERT", "spiceRating": "SWEET", "cookingTime": 25, "instructions": "1) In a large bowl, mix together flour, salt, baking powder and sugar; set aside. Preheat waffle iron to desired temperature. \n 2) In a separate bowl, beat the eggs. Stir in the milk, butter and vanilla. Pour the milk mixture into the flour mixture; beat until blended. \n 3) Ladle the batter into a preheated waffle iron. Cook the waffles until golden and crisp. Serve immediately." }</pre> <p>Ingredients: flour, salt, baking powder, sugar, eggs, milk, butter, vanilla,</p>

Inserting into Ingredients:

INSERT INTO ingredients(iname, allergy_category)

```
VALUES ('Pasta', 'gluten');
```

Inserting into recipes_ingredients:

```
INSERT INTO recipes_ingredients(ingredient_id, recipe_id)
VALUES (1,1);
```

Code ideas:

Innerjoin —>

- Look for an example of the backend thing we're trying to make something similar to?
- Write the documentation!!! README FILE
 - Mention commits for paired programming + what each person worked on + what their commits were

Presentation ideas:

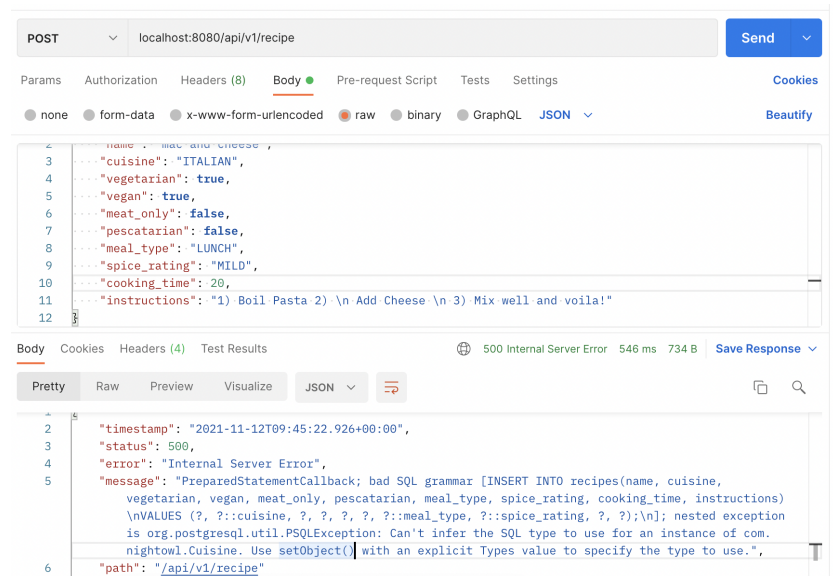
What we struggled with but fixed:

1) Trying to integrate Java Enum

```
@Override
public int insertRecipe(Recipe recipes) {
    String sql = ""
        INSERT INTO recipes(name, cuisine
        VALUES (?, ::cuisine, ?, ?, ?, :
        """;

    //CAST(? AS animal_type)
    //?::animal_type

    return jdbcTemplate.update(
        sql,
        recipes.name()
```



classes into Postgres Database.

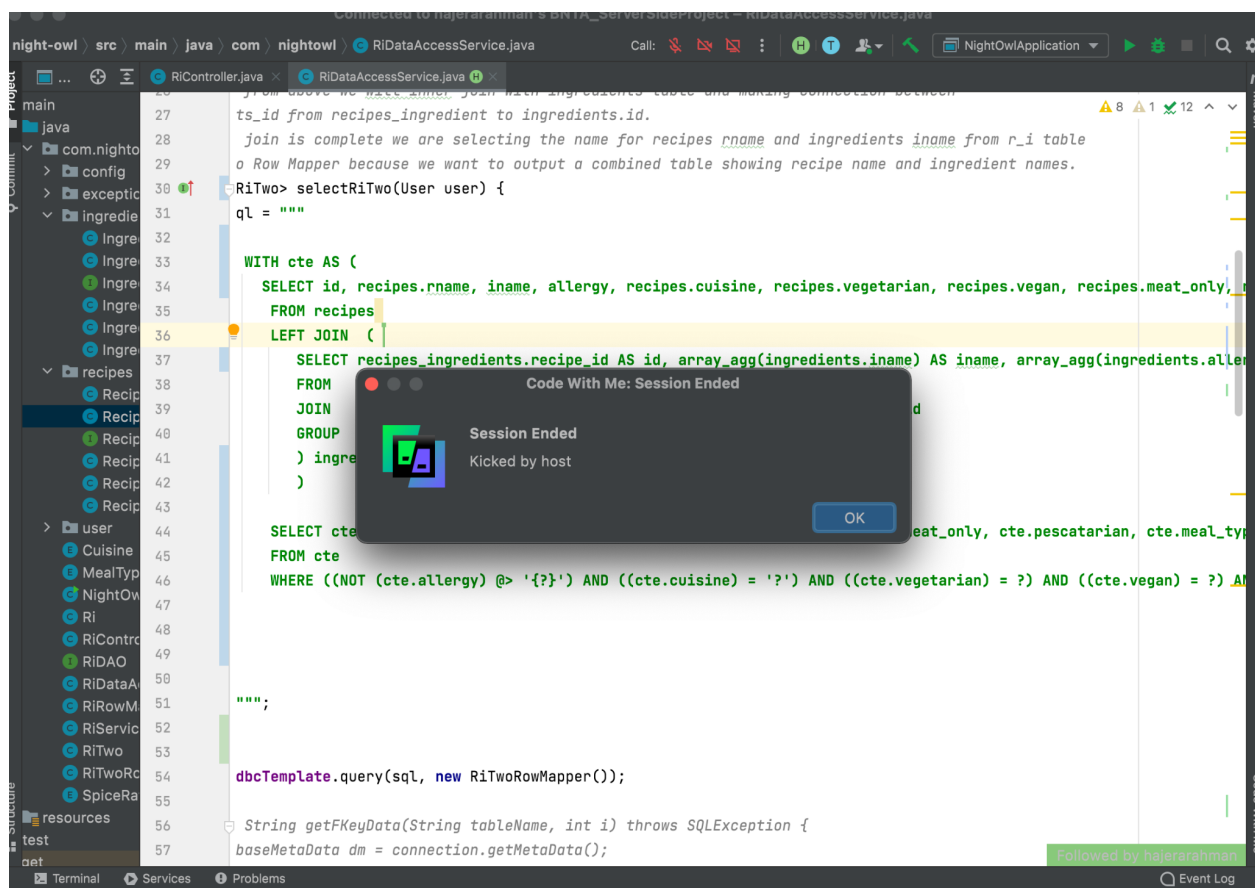
```
nightowl=# SELECT * FROM recipes_ingredients;
```

id	ingredient_id	recipe_id
1	1	1
2		1
3		1
4		1
5		1
6		1
7		1
8		1
9		1
10		1
11		1

We were able to add ingredients and recipes individually. But we were unable to associate ingredients to each recipe id because the postman wasn't working for some reason.

The query was working when we tested in the terminal by manually entering .
24th attempt.

When code rage makes the host kick you out....T^T (poor Darania)



The screenshot shows an IDE window with a Java file named `RiDataAccessService.java`. The code is a `selectRiTwo` method that constructs a complex SQL query. The query uses a `WITH` clause to create a CTE named `cte`, which selects columns from the `recipes` table and aggregates data from the `recipes_ingredient` table. The main query then selects from `cte` based on various filters. A dialog box titled "Code With Me: Session Ended" is overlaid on the code, with the message "Session Ended" and "Kicked by host". The dialog box has an "OK" button. The IDE's sidebar shows a project structure with folders like `main`, `com.nightowl`, `config`, `exception`, `ingredient`, `recipes`, `user`, `resources`, and `test`. The bottom of the IDE shows tabs for "Terminal", "Services", and "Problems".

```
27  ts_id from recipes_ingredient to ingredients.id.  
28  join is complete we are selecting the name for recipes rname and ingredients iname from r_i table  
29  o Row Mapper because we want to output a combined table showing recipe name and ingredient names.  
30  RiTwo> selectRiTwo(User user) {  
31  ql = ""  
32  
33  WITH cte AS (  
34  SELECT id, recipes.rname, iname, allergy, recipes.cuisine, recipes.vegetarian, recipes.vegan, recipes.meat_only,  
35  FROM recipes  
36  LEFT JOIN (  
37  SELECT recipes_ingredient.recipe_id AS id, array_agg(ingredient.iname) AS iname, array_agg(ingredient.allergy)  
38  FROM  
39  JOIN  
40  GROUP  
41  ) ingre  
42  )  
43  
44  SELECT cte  
45  FROM cte  
46  WHERE ((NOT (cte.allergy) @> '{?}')) AND ((cte.cuisine) = '?') AND ((cte.vegetarian) = ?) AND ((cte.vegan) = ?) AND  
47  
48  
49  
50  
51  
52  
53  
54  dbcTemplate.query(ql, new RiTwoRowMapper());  
55  
56  String getKeyData(String tableName, int i) throws SQLException {  
57  baseMetaData dm = connection.getMetaData();
```

EXTRA READING LIST

- Spring boot
 - Debugging/writing tests
 - How to implement Enums in Postgres
-

Daily work record:

Day 1: 10th Nov	Use miro to create an outline of our project ideas. Planned classes and how everything fits in the whole API.
Day 2: 11th Nov	Initialized Spring Boot. Created api, service and controller class. Successfully created database via flyway migration and JDBC. Successfully managed to GET Request. Connected localhost to postman and we tried to POST a request to add a new recipe but it is not happy with ENUMs. :(Jordan had an interview and tamara died for like 5 hours
Day 3: 12th Nov	Had a syntax error fixed, for enums and have implemented them from java into postgres. Ingredients and Recipes Class successfully created. GET, POST, DELETE & PUT requests successfully working for
Day 4: 13th Nov	Unique ingredients and recipes on the table. Got the files to have joined table recipes_ingredients. Got the SQL logic sorted, now working on Java logic.
Day 5: 14th Nov	Figured out how to inner join databases to give out exact results we want. Have successfully associated each ingredient in an array list per recipe rather than returning a messy table which would print out the same thing for each ingredient present in each recipe. Have written complicated sql query involving cte analytic method to filter out recipes according to allergy category. We have successfully hardcoded it, however now we have to implement it into java code to do a GET request which it is not happy with for some reason.
Day 6: 15th Nov	Tried to fix GET requests via postman. There are some issues with how we are trying to communicate using RequestParam, path variables, etc...And it still hasn't worked. SQL query itself is working fine. It's linking the request to the postman that's a problem. Have run to Colin for help as a last resort. Started to test our application. Having some difficulties trying to test DataAccessService. So we have allocated a method per person to test in our

	own time.
Day 7: 16th Nov	Fixed GET request via postman. Adding all the recipes and ingredients ids to the database. Have finished testing for all service classes, just have throwables to do. API essentially finished. Have the extensions to do if we have time: Users should be able to select from more parameters e.g by cuisine, meal type, etc... & User should be able to enter in two allergies.