

Graph - isnotTooAllergic

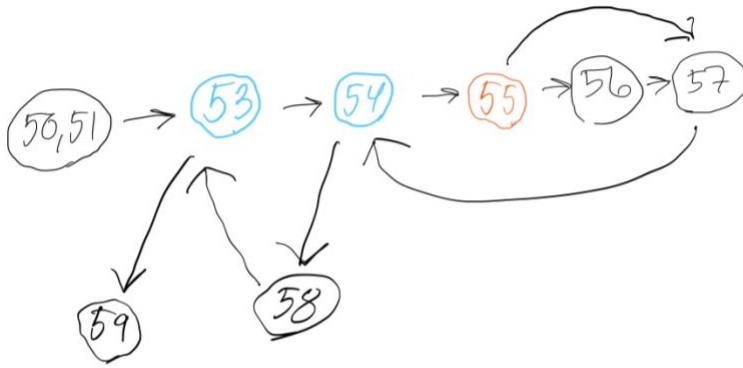
```
49 @ public boolean isNotTooAllergic(Diet diet){
50     double numberOfAllergicMatch = 0;
51     double numberOfAllowedFood = diet.getAllowedFood().size();
52
53     for (Food allergyFood : this.allergies) {
54         for (Food dietFood: diet.getAllowedFood()) {
55             if(allergyFood.getName().equals(dietFood.getName()))
56                 numberOfAllergicMatch++;
57         }
58     }
59     return !(numberOfAllergicMatch / numberOfAllowedFood * 100 >= 50);
60 }
```

We chose the method `isNotTooAllergic` in the `Person`-class. The method loops through the list of allergies from the person and the list of allowed foods in the passed diet. If the two lists contain the same food-object the double datatype called `numberOfAllergicMatch` will increment. We use the debugger to step over the method.

1c

//Person allergic to less than 50% of the food.

```
150 @Test // Person allergic to less than 50% of the dietFoods
151 void testIsNotTooAllergic_1c(){
152     Food food1 = new Food( name: "Mais", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
153     Food food2 = new Food( name: "Brokkoli", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
154     Food food3 = new Food( name: "Gulrøtter", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
155     Food food4 = new Food( name: "Agurk", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
156     Food food5 = new Food( name: "Kjøttkaker", caloriesPer100g: 150, isVegan: false, FoodType.PROTEIN);
157     Food food6 = new Food( name: "Ribbe", caloriesPer100g: 150, isVegan: false, FoodType.PROTEIN);
158
159     ArrayList<Food> allergies = new ArrayList<>(List.of(food1, food2, food3));
160     ArrayList<Food> allowedFoods = new ArrayList<>(List.of(food1, food4, food5));
161
162     Diet diet = new LowCarbDiet( daysDuration: 11, purpose: "hh", allowedFoods, isVegan: true, minWeightKg: 75);
163
164     Person person1 = new Person(food1, allergies, diet, weight: 75);
165
166     assertTrue(person1.isNotTooAllergic(diet));
167 }
```



* if-statement
* for-loop

The allergies list consists of 3 food-objects. The for-loop will run 3 times. The list of allowed food also consists of 3 food-objects. Food1 and Food1 in the two lists are the same so the double datatype increments and is now 1 (Line 55). The for-loop runs 3 times and increments by 1 in total. Once the for-loop has executed 3 times the boolean-value (Line 59) is returned.

1d

//Person with no allergies

```

@Test // Person with no allergies
void testIsNotTooAllergic_1d(){
    Food food1 = new Food( name: "Majs", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
    Food food2 = new Food( name: "Brokkoli", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
    Food food3 = new Food( name: "Gulrøtter", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
    Food food4 = new Food( name: "Agurk", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
    Food food5 = new Food( name: "Kjøttkaker", caloriesPer100g: 150, isVegan: false, FoodType.PROTEIN);
    Food food6 = new Food( name: "Ribbe", caloriesPer100g: 150, isVegan: false, FoodType.PROTEIN);

    ArrayList<Food> allergies = new ArrayList<>();
    ArrayList<Food> allowedFoods = new ArrayList<>(List.of(food1, food4, food5));

    Diet diet = new LowCarbDiet( daysDuration: 11, purpose: "hh", allowedFoods, isVegan: true, minWeightKg: 75);

    Person person1 = new Person(food1, allergies, diet, weight: 75);

    assertTrue(person1.isNotTooAllergic(diet));
}
  
```



The allergies list consists of 0 objects so the for-loop won't run.

1e

//Person with 0% allergies

```

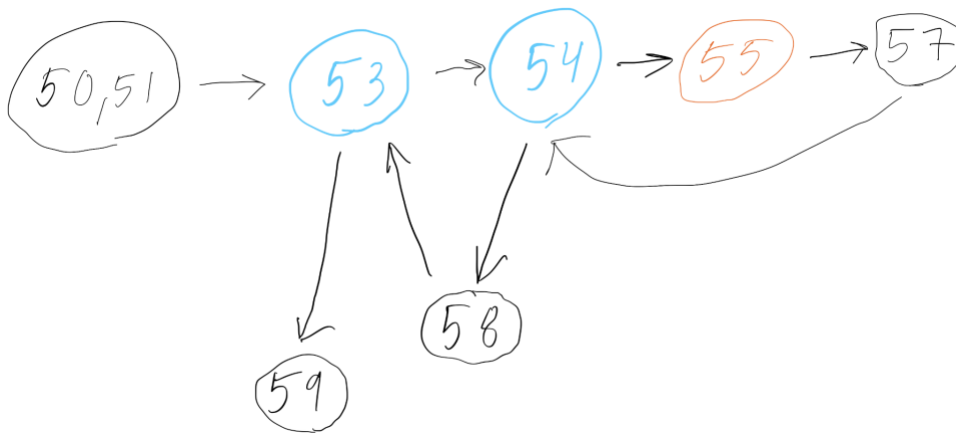
@Test // Person with 0% allergies
void testIsNotTooAllergic_1e(){
    Food food1 = new Food( name: "Mais", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
    Food food2 = new Food( name: "Brokkoli", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
    Food food3 = new Food( name: "Gulrøtter", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
    Food food4 = new Food( name: "Agurk", caloriesPer100g: 150, isVegan: true, FoodType.PROTEIN);
    Food food5 = new Food( name: "Kjøttkaker", caloriesPer100g: 150, isVegan: false, FoodType.PROTEIN);
    Food food6 = new Food( name: "Ribbe", caloriesPer100g: 150, isVegan: false, FoodType.PROTEIN);

    ArrayList<Food> allergies = new ArrayList<>(List.of(food2, food3, food6));
    ArrayList<Food> allowedFoods = new ArrayList<>(List.of(food1, food4, food5));

    Diet diet = new LowCarbDiet( daysDuration: 11, purpose: "hh", allowedFoods, isVegan: true, minWeightKg: 75);

    Person person1 = new Person(food1, allergies, diet, weight: 75);

    assertTrue(person1.isNotTooAllergic(diet));
}
  
```



The for-loop (Line 53) will loop 3 times and the for-loop (Line 54) will loop 3 times. Neither of the food-objects are the same so an increment will not happen. After the for-loops are executed the boolean-value will be returned (Line 59).