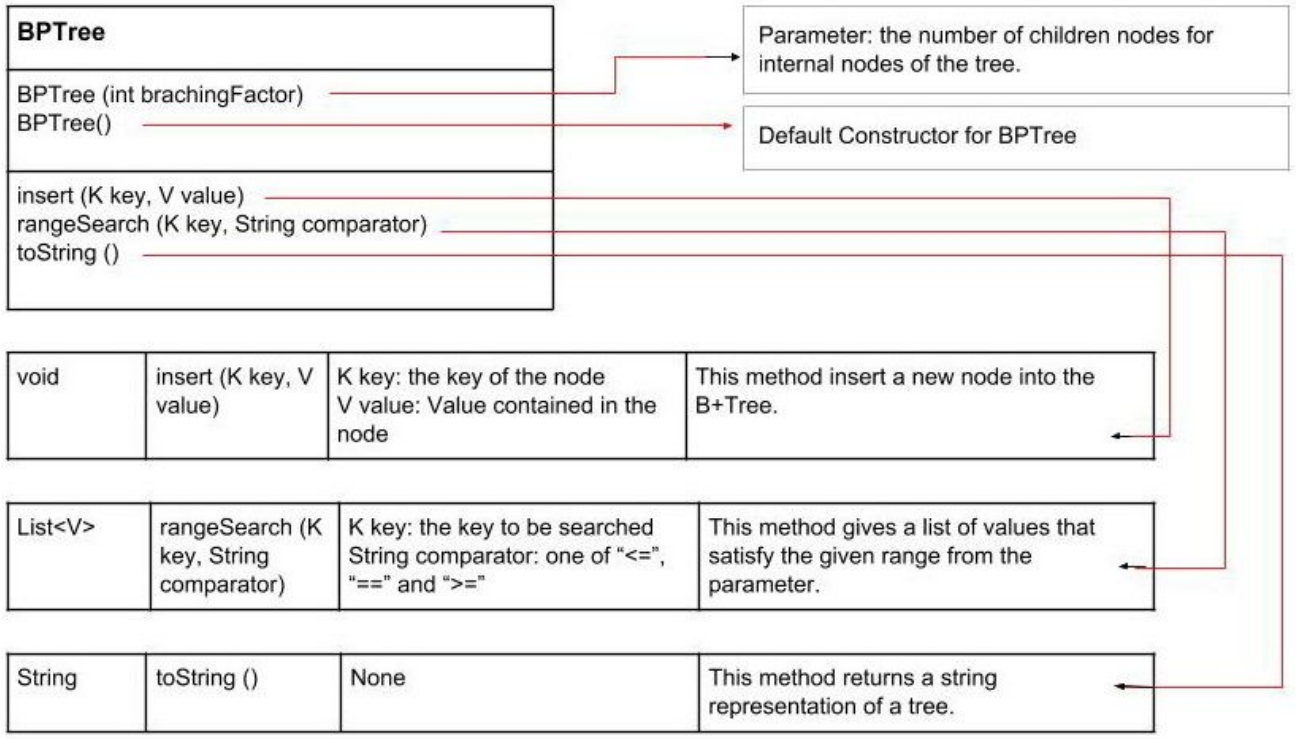
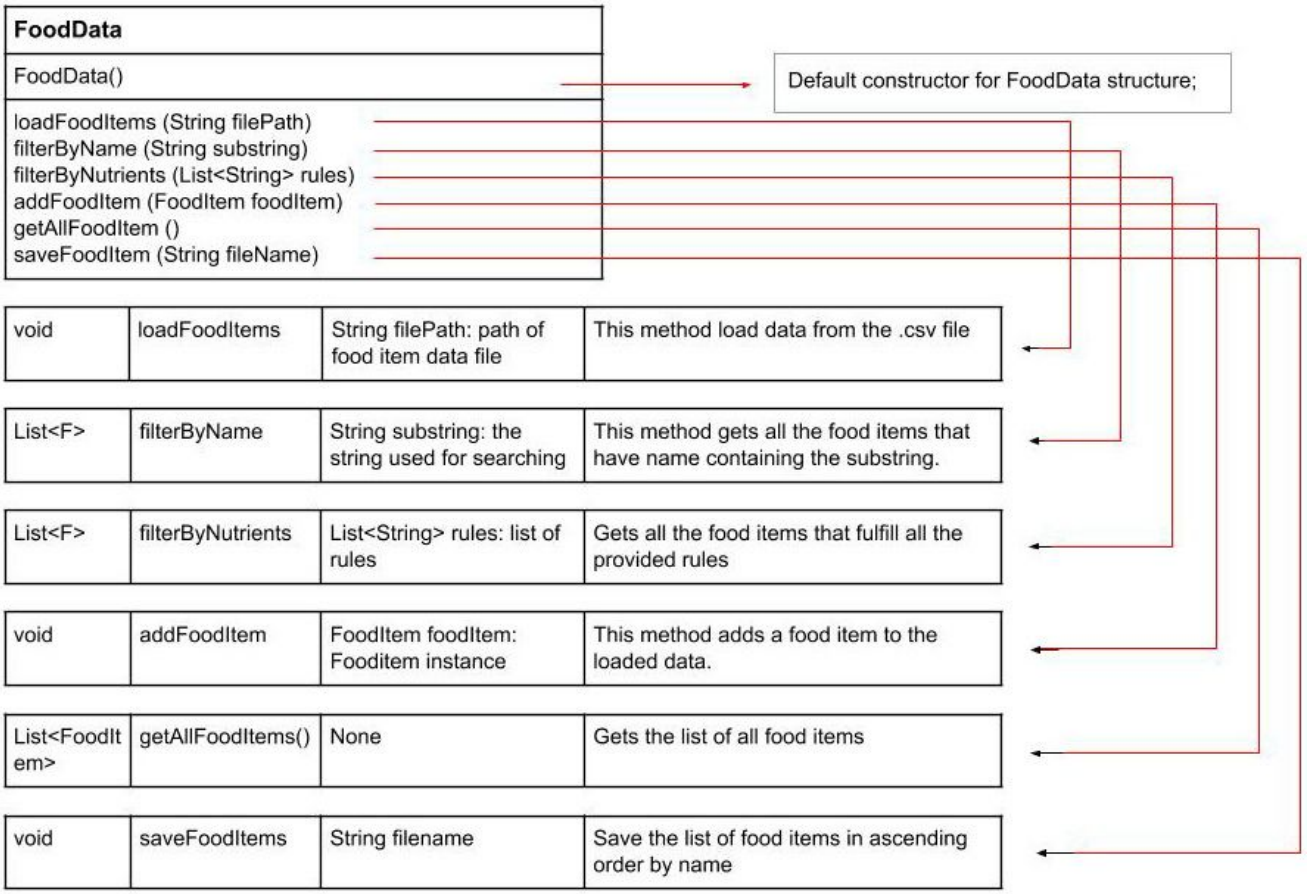
Food Query and Meal Analysis

Class Summary

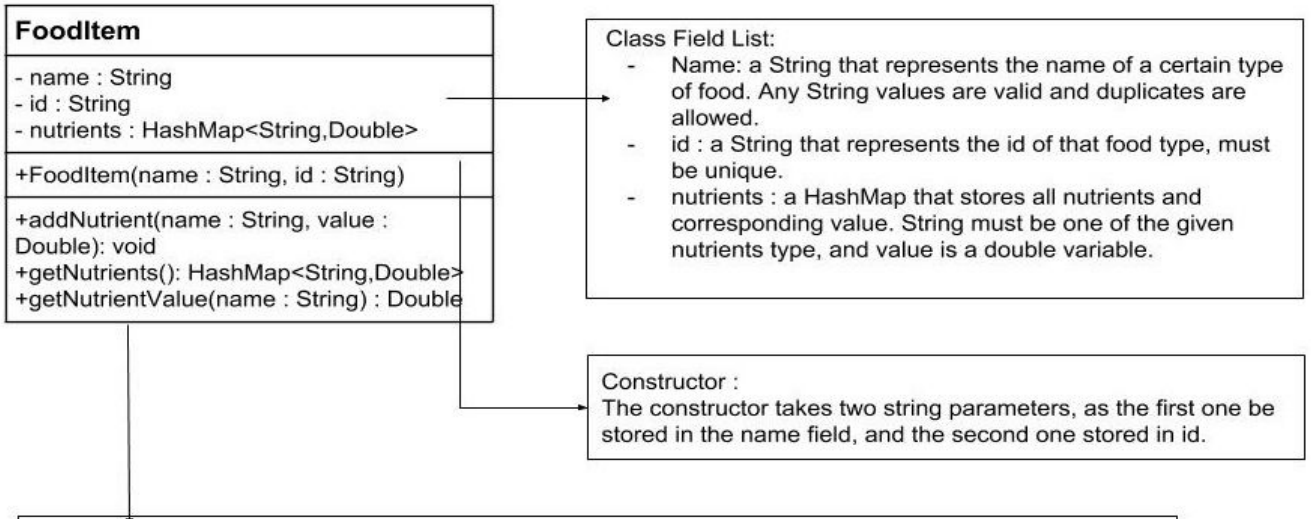
enum, interface, class, abstract class	Name of the type	Description of use or purpose of this type
Interface	BPTreeADT	Defines required operations for B+ Tree
Class	BPTree	Implement BPTreeADT for Nutrient filter
Interface	FoodDataADT	Defines required operations for food item data
Class	FoodData	Implement FoodDataADT for processing food item data
Class	FoodItem	Provide all information of a type of food including name, nutrients, etc.

Class Diagrams



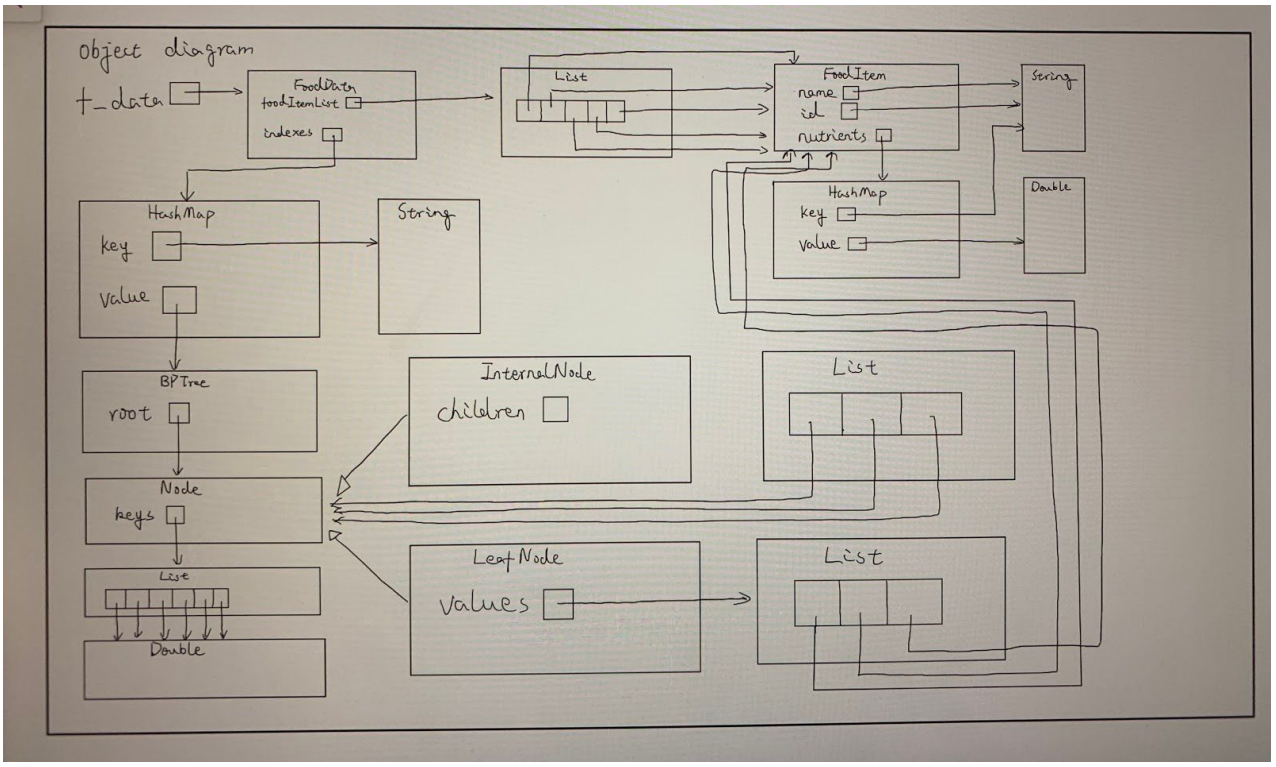
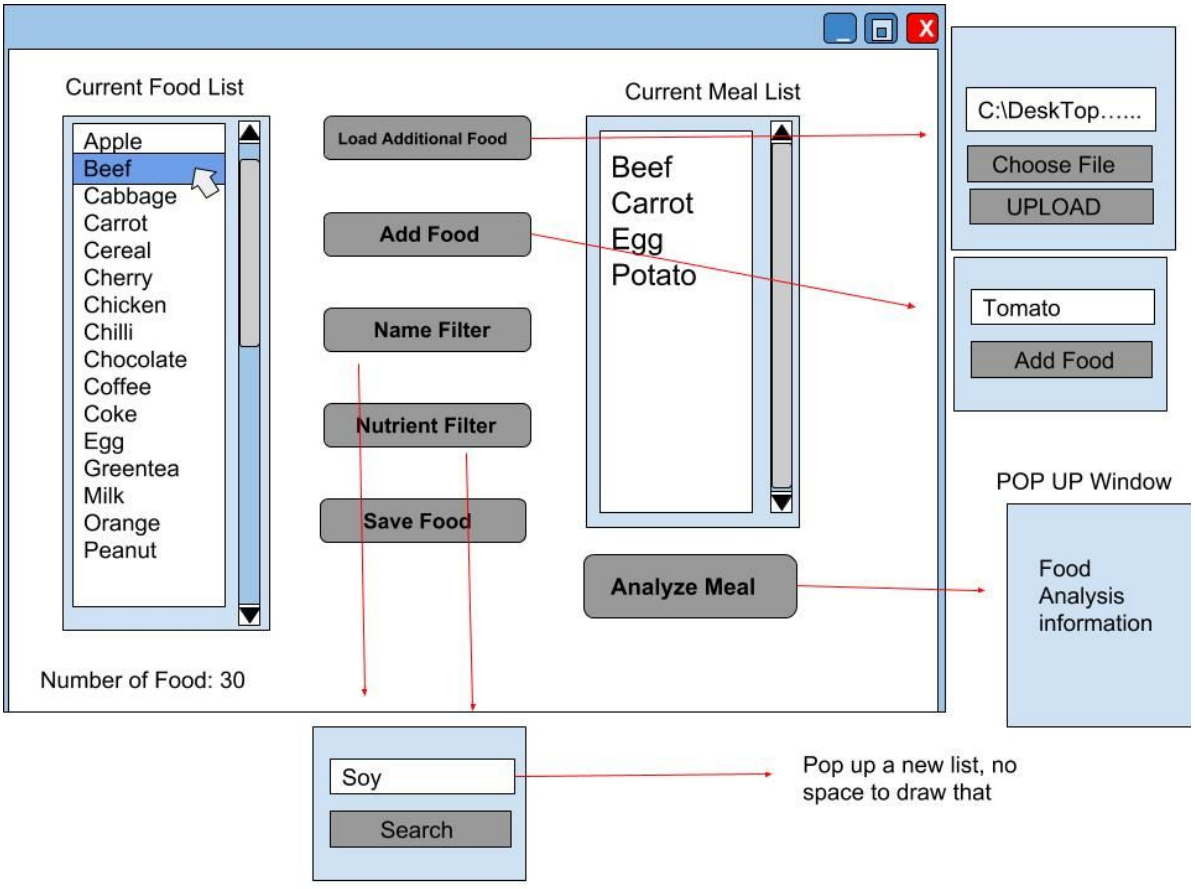


void	loadFoodItems	String filePath: path of food item data file	This method load data from the .csv file
List<F>	filterByName	String substring: the string used for searching	This method gets all the food items that have name containing the substring.
List<F>	filterByNutrients	List<String> rules: list of rules	Gets all the food items that fulfill all the provided rules
void	addFoodItem	FoodItem foodItem: Fooditem instance	This method adds a food item to the loaded data.
List<FoodItem>	getAllFoodItems()	None	Gets the list of all food items
void	saveFoodItems	String filename	Save the list of food items in ascending order by name



Mathods List:			
void	addNutrient	name : String Value : Double	This method will add/store a type of nutrient and corresponding value to the nutrients field.
HashMap<String,Double>	getNutrients	none	Return the Hashmap that contains all the nutrients value of that certain food type
Double	getNutrientValue	name : String	This method takes the name of a certain nutrient as parameter, gets the corresponding value from its nutrients field and return the retrieved value.

Object Diagrams



GUI layout Sketch