# JS Advanced Final Exam

## Problem 2. Restaurant



Write a **class** **Restaurant** which has the following **functionality**:

### Constructor

Should have 4 properties:

* **budgetMoney - number**
* **menu - object**
* **stockProducts - object**
* **history - array**

**At initialization** of the **Restaurant class**, the **constructor** accepts only the **budget!** The rest of the properties must be **empty**!

### Methods

#### loadProducts()

Accept 1 argument **products** (**array from strings**).

* **Every element** into this array is information about product in format:

**"{productName} {productQuantity} {productTotalPrice}"**

* They are separated by a **single** **space**

**Example**: ["**Banana** **10** **5**", **"Strawberries** **50** **30", "Honey 5 50"…**]

This method **appends** **products** into our products in stock (**stockProducts**) under the following circumstances:

* **If the budget allows us to buy the current product ( {productTotalPrice} <= budget )** , we add it to **stockProducts** keeping **the name** and **quantity** of **the meal** and we **deduct** **the price of the product** from **our budget.** If the current product already exists into **stockProducts** just add the new quantity to the old one
* And finally, **whether or not** we have **added** a product to stock or **not**, we **record** our **action** in the **history**:
* If we **were able to add** the current product:

"***Successfully loaded {productQuantity} {productName}***"

* If we **not**:

"***There was not enough money to load {productQuantity} {productName}***"

This method must **return all actions joined by a new line!**

#### addToMenu()

* Accept 3 arguments **meal** (string)**, needed products** (array from strings) and **price** (number).
* Every element into **needed products** is in format: **"{productName} {productQuantity}"** They are separated by a **single space**!
* If the meal is not in our menu, **appends a meal** into object **menu**. **Must have properties products and price!**
* Check how many meals have in menu and **returns one of** the following messages:
  + One meal:

***"Great idea! Now with the {meal} we have 1 meal in the menu, other ideas?"***

* Zero, Two or more meal:

***"Great idea! Now with the {meal} we have {the number of all meals in the menu} meals in the menu, other ideas?"***

* Otherwise, if we already have this meal return the **message**:

***"The {meal} is already in the our menu, try something different.*"**

#### showTheMenu()

* This method just **return** **all meals** from our **menu** **separated by a new line** in format:

{meal} - $ {meal price}

{meal} - $ {meal price}

{meal} - $ {meal price}

…

* If our menu **is empty**, just return the **message**:

"***Our menu is not ready yet, please come later...***"

#### makeTheOrder()

Accept 1 argument **meal** (string).

* This method **searches** **the menu** for a **certain meal**.
* If **we do not have** the **given meal**, **return** the following **message**:

"***There is not {meal} yet in our menu, do you want to order something else?***"

* **Otherwise,** if we **have** **this meal** in **the menu**, we need to check if we have the **needed products** to make it! If we **do not have** **all needed products** for this meal, **return** the following **message**:

**"*For the time being, we cannot complete your order ({meal}), we are very sorry...*"**

* If we **have** **this meal in the menu** and also, we **have** **all needed products** to make it, **return** the following message:

"***Your order ({meal}) will be completed in the next 30 minutes and will cost you {the current price of the meal}."***

* You also **need to reduce quantity of all used products** from those in stock and **add the price** of the meal to the **total budget**.

### Examples

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| **Input 1** |
| **let *kitchen*** = **new** Restaurant(1000); ***console***.log(***kitchen***.loadProducts([**'Banana 10 5'**, **'Banana 20 10'**, **'Strawberries 50 30'**, **'Yogurt 10 10'**, **'Yogurt 500 1500'**, **'Honey 5 50'**])); |

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| **Output 1** |
| Successfully loaded 10 Banana Successfully loaded 20 Banana Successfully loaded 50 Strawberries Successfully loaded 10 Yogurt There was not enough money to load 500 Yogurt Successfully loaded 5 Honey |

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| **Input 2** |
| **let *kitchen*** = **new** Restaurant(1000);  ***console***.log(***kitchen***.addToMenu(**'frozenYogurt'**, [**'Yogurt 1'**, **'Honey 1'**, **'Banana 1'**, **'Strawberries 10'**], 9.99)); ***console***.log(***kitchen***.addToMenu(**'Pizza'**, [**'Flour 0.5'**, **'Oil 0.2'**, **'Yeast 0.5'**, **'Salt 0.1'**, **'Sugar 0.1'**, **'Tomato sauce 0.5'**, **'Pepperoni 1'**, **'Cheese 1.5'**], 15.55)); |

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| **Output 2** |
| Great idea! Now with the frozenYogurt we have 1 meal on the menu, other ideas? Great idea! Now with the Pizza we have 2 meals on the menu, other ideas? |

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| **Input 3** |
| **let *kitchen*** = **new** Restaurant(1000);  ***console***.log(***kitchen***.showTheMenu()); |

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| **Output 3** |
| frozenYogurt - $ 9.99 Pizza - $ 15.55 |

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| **Input 4** |
| **let *kitchen*** = **new** Restaurant(1000);  ***kitchen***.loadProducts([**'Yogurt 30 3'**, **'Honey 50 4'**, **'Strawberries 20 10'**, **'Banana 5 1'**]);  ***kitchen***.addToMenu(**'frozenYogurt'**, [**'Yogurt 1'**, **'Honey 1'**, **'Banana 1'**, **'Strawberries 10'**], 9.99);  ***console***.log(***kitchen***.makeTheOrder(**'frozenYogurt'**)); |

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| **Output 4** |
| Your order (frozenYogurt) will be completed in the next 30 minutes and will cost you 9.99. |

### Submission

Submit only the **Restaurant class**.