**Meal Maker**

As a frequent diner, you love trying out new restaurants and experimenting with different foods. However, having to figure out what you want to order can be a time-consuming ordeal if the menu is big, and you want an easier way to be able to figure out what you are going to eat.

In this project, you’ll use JavaScript to randomly create a three-course meal based on what is available on a menu. We’ll keep running it until we’re satisfied with the generated meal!

If you get stuck during this project or would like to see an experienced developer work through it, click “**Get Help**“ to see a **project walkthrough video**.

**Tasks**

**13/13Complete**

Mark the tasks as complete by checking them off

**Meal Maker**

**1.**

Start by creating an empty menu object.

Hint

const menu = {

};

**2.**

Add a \_courses property to your menu object and set its value to an empty object. This property will ultimately contain a mapping between each course and the dishes available to order in that course.

Hint

const menu = {

\_courses: {}

};

**3.**

Create three properties inside the \_courses object called appetizers, mains, and desserts. Each one of these should initialize to an empty array.

Hint

Here is what you would do for the appetizers, make sure to include the mains and desserts as well.

const menu = {

\_courses: {

appetizers: [],

...

}

};

**4.**

Create getter and setter methods for the appetizers, mains, and desserts properties.

Hint

const menu = {

\_courses: {

appetizers: [],

...,

},

get appetizers() {

},

set appetizers(appetizerIn) {

},

...

};

**5.**

Inside your menu object, create an empty getter method for the \_courses property.

Hint

const menu = {

\_courses: {},

get courses() {

return ...;

}

};

**6.**

Inside the courses getter method, return an object that contains key/value pairs for appetizers, mains, and desserts.

Hint

Return an object with properties for appetizers, mains, and desserts. The example below shows how to create an object that contains an array of appetizers.

get courses() {

return {

appetizers: this.appetizers, // this uses the appetizer getter method

...

}

**7.**

Inside the menu object, we are going to create a method called .addDishToCourse() which will be used to add a new dish to the specified course on the menu.

The method should take in three parameters: the courseName, the dishName , and the dishPrice.

Hint

const menu = {

...

addDishToCourse (courseName, ...) {

}

};

**8.**

The .addDishToCourse() method should create an object called dish which has a name and price which it gets from the parameters.

The method should then push this dish object into the appropriate array in your menu‘s \_courses object based on what courseName was passed in.

Hint

const menu = {

...

addDishToCourse (courseName, ...) {

const dish = {

...

};

this.\_courses[courseName].push(dish); // also try using your setter method!

}

};

**9.**

Now, we’re going to need another function which will allow us to get a random dish from a course on the menu, which will be necessary for generating a random meal.

Create a method inside the menu object called .getRandomDishFromCourse(). It will take in one parameter which is the courseName.

Hint

const menu = {

...

getRandomDishFromCourse (...) {

}

};

**10.**

There are a few steps in getting the .getRandomDishFromCourse() to work.

1. Retrieve the array of the given course’s dishes from the menu‘s \_courses object and store in a variable called dishes.
2. Generate a random index by multiplying Math.random() by the length of the dishes array (This will guarantee that the random number will be between 0 and the length of the array)
3. Round that generated number to a whole number by using Math.floor() on the result.
4. Return the dish located at that index in dishes.

Hint

const menu = {

...

getRandomDishFromCourse: function (...) {

const dishes = this.\_courses[courseName];

const randomIndex = Math.floor(Math.random() \* dishes.length);

// return a dish from `dishes` by using `randomIndex`

}

};

**11.**

Now that we have a way to get a random dish from a course, we can create a .generateRandomMeal() function which will automatically generate a three-course meal for us. The function doesn’t need to take any parameters.

1. The function should create an appetizer variable which should be the result of calling the .getRandomDishFromCourse() method when we pass in an appetizers string to it.
2. Create a main variable and dessert variable the same way you created the appetizer variable, but make sure to pass in the right course type.
3. Calculates the total price and returns a string that contains the name of each of the dishes and the total price of the meal, formatted as you like.

Hint

const menu = {

...

generateRandomMeal: function() {

const appetizer = this.getRandomDishFromCourse('appetizers');

const mains = ...

const desserts = ...

const totalPrice = appetizer.price + ...

return `Your meal is ${appetizer.name}, ${main.name}, ... The price is $${totalPrice}.`;

}

};

**12.**

Now that we’ve finished our menu, object, let’s use it to create a menu by adding some appetizers, mains, and desserts with the .addDishToCourse() function. Add at least 3 dishes to each course (or more if you like!).

Hint

menu.addDishToCourse('appetizers', 'Caesar Salad', 4.25);

...

**13.**

Once your menu has items inside it, generate a meal by using the .generateRandomMeal() function on your menu, and save it to a variable called meal. Lastly, print out your meal variable to see what meal was generated for you.

Hint

let meal = menu.generateRandomMeal();

console.log(meal);