Object Exercises

CS133JS Lab 6, Part 1

Create a file named *ObjectExercises.js*. For each of the exercises below, add the code required to complete the exercise.

Creating Objects

1. Create two global object literals with the properties listed. You can choose your own values.

- book
    - title
    - author
    - copyright
    (date)
- author
    - name
    - birthdate

Check

If you have created the objects correctly, the property keys will be listed here:
(Don't worry about the formatting of the lists.)

The book object: title,author,copyright
The author object: name,birthdate

Accessing Properties

2. Write two functions with the following names and return values:

- getTitle()
    - No parameters
    - Returns the book title
- getAuthor()
    - No parameters
    - Returns the name of the author
    (From the author object)

Check

If you have written the functions correctly, the names of the title and author will be shown here:

The book title: Oliver Twist
The author name: Charles Dickens

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3. Write a function described below:

setBirthdate(year)

- One parameter: the year the author was born.
- No return value
- Sets the birthdate property of the *author* object

Check

If you have written the function correctly, the new birth date will be *1901*

The author's birth year: 1901

Calling a Method

4. For this exercise, the object below has already been created:
(It is in the header of the html file.)

```
const microwave = {
    power: "Medium",
    time: 30,
    cook: function() {
        return "Cooking on " + this.power + " for " + this.time + " seconds.";
    }
}
```

Write the function described below:

cookOneMinute()

- No parameters
- The function will do these things to the *microwave* object:
    - Set the time to 60 seconds
    - Call the cook method
- Returns he string from cook.

Check

If you have written the functions correctly, the cooking message will be shown here:

Cooking on medium for 60 seconds.

Adding Properties to an Object

5. For this exercise, the object below has already been created:
(It is in the header of the html file.)

```
const cdPlayer = {
    track: 9,
    cook: play() {
        return "Playing track " + this.track + ".";
    }
}
```

Write code to add the two properties described below to the *cdPlayer* object. Choose your own values.

- volume
(numeric data type)
- album
(Name of the album on the CD)

Check

If you have added the properties correctly, the values will be shown here:

The CD player's volume: 10
The name of the album: Peter, Paul and Mary

Adding Methods to an Object

6. Write code to add the method shown below to the *cdPlayer* object
skip()

- Sets the track to the next track.
- No parameters or return value

If you have added the method correctly, the track number will be 10.

The CD player's track number: 10

Removing Properties from an Object

7. Write code to remove the *power* property from the *microwave* object.

Check

The CD player's power property: doesn't exist

Looping through Properties on an Object

8. Write the function described below that will use a loop to return an list of the <u>values</u> (not keys) of the properties in the *cdPlayer* object

listValues()

- No parameters
- Returns a string

Check

The values of the properties: Medium, 10, function () { return "Playing track " + this.track + "."; }, 10, Peter, Paul and Mary, function () { this.track++; }.