orange™

أكاديمية البرمجة
Coding Academy
powered by Simplon

JSON and API

1. Create a JSON object that contains information about a person, such as name, age, and email address. Use the JSON.stringify() method to convert the object to a JSON string, and then use the JSON.parse() method to convert the string back to an object.

2. Write a JavaScript function that receives a JSON object as a parameter and returns the number of properties in the object. Use the Object.keys() method to get an array of the object's properties and then use the length property of the array to get the number of properties.

3. Create a JSON object that contains an array of objects, each representing a book. Each book object should contain properties such as title, author, and publication date. Write a JavaScript function that receives the JSON object as a parameter and returns an array of book titles.

4. Write a JavaScript function that receives a JSON object as a parameter and returns the average of a specific property across all objects in the array. For example, if the JSON object contains an array of student objects and each student object contains a "grade" property, the function should return the average grade across all students.

5. Write a JavaScript function that receives a JSON object as a parameter and sorts the objects in the array by a specific property. For example, if the JSON object contains an array of student objects and each student object contains a "grade" property, the function should sort the array by grade.

6. Create a JSON object that contains an array of objects, each representing a city. Each city object should contain properties such as name, population, and country. Write a JavaScript function that receives the JSON object as a parameter and returns an array of city names sorted by population in descending order.

7. Create a JSON file that contains an array of objects, each representing a product. Each product object should contain properties such as name, price, and quantity. Write a JavaScript function that receives the JSON object as a parameter and returns the total revenue from all products.

    example for products

```
[
  {
    "name": "Laptop",
    "price": 1000,
    "quantity": 5
  },
  {
    "name": "Smartphone",
    "price": 700,
    "quantity": 10
  },
  {
    "name": "Headphones",
    "price": 100,
    "quantity": 20
  },
  {
    "name": "Monitor",
    "price": 300,
    "quantity": 7
  }
]
```

8. Using api.gitbub.com/users/yourusername/repos display the name for all of your repositories.