JavaScript Objects - Practice Code
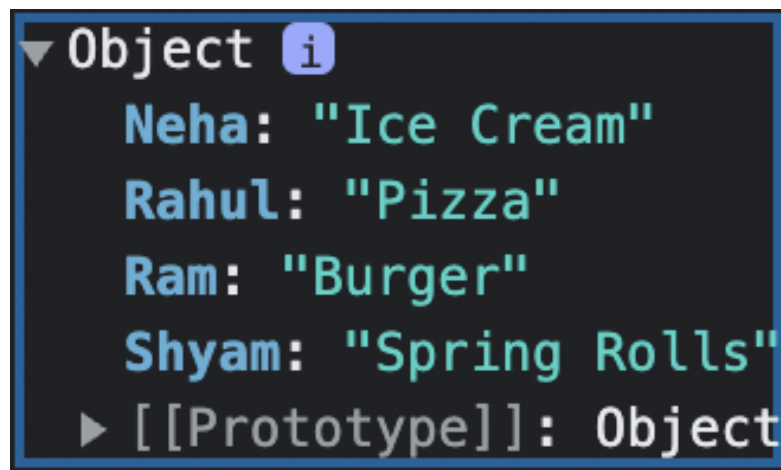
Steps to see the output:

- Open VS code.
- Select New File in the opened folder…
- Save the file in the appropriate folder/ create the folder and save the file with extension.
- Copy and Add the below given JS code in the file.
- View the file in the browser, by right click on the file name in the left pane.
- View of file in browser.

Problem Statement 1: 2D Arrays to Objects

Write a javascript file to convert a two-dimensional array into an object in JavaScript, print it on the console window of your browser?

Output:-

Problem Statement 2: Delete Property

Write a javascript file to create a student object of any 5 properties and then delete the 2 properties from the student object. Also console/alert the object output before or after deleting the property.

Output:-


```
                                                                    ▶ {Name: 'Rahul Verma', Class: '10th', Rollno: 31, Subject: 'English', Marks:
Output is in your console window                                      '34'}
                                                                    ▶ {Name: 'Rahul Verma', Subject: 'English', Marks: '34'}            pr.html:20
```

127.0.0.1:5500 says

```
{
    "Name": "Rahul Verma",
    "Class": "10th",
    "Rollno": 31,
    "Subject": "English",
    "Marks": "34"
}
```

OK

127.0.0.1:5500 says

```
{
    "Name": "Rahul Verma",
    "Subject": "English",
    "Marks": "34"
}
```

OK

Problem Statement 3: Swap Values and Keys

Write a javascript file to get a copy of the object where the keys have become the values and the values the keys.

Output:-


```
                                                                    ▼ Object ⓘ                                                pr.html:31
Output is in your console window                                        Age: "33"
                                                                       Name: "Virat"
                                                                       Sports: "Cricket"
                                                                     ▶ [[Prototype]]: Object
                                                                    ▼ Object ⓘ                                                pr.html:35
                                                                       33: "Age"
                                                                       Cricket: "Sports"
                                                                       Virat: "Name"
```

```
127.0.0.1:5500 says

{
   "Name": "Virat",
   "Sports": "Cricket",
   "Age": "33"
}

                                    OK
```

```
127.0.0.1:5500 says

{
   "33": "Age",
   "Virat": "Name",
   "Cricket": "Sports"
}

                                    OK
```

Problem Statement 4: Search for a given property (key)

Write a javascript file to create a new object and then check whether an object contains any given property.

Output:-

```
Output is in your console window                    true                    pr.html:15
                                                    Live reload enabled.    pr.html:45
                                                    >
```

```
127.0.0.1:5500 says

true

                                    OK
```

Solutions

Problem Statement 1:

```html
<!DOCTYPE html>
<html lang="en">
<head>
   <title>JS Objects Practice Code </title>
</head>
<body>
    <h1>Output is in your console window</h1>
<script type="text/javascript">
   function arr2obj(arr) {

      // Create an empty object
      let obj = {};

      arr.forEach((v) => {
          // Extract the key and the value
          let key = v[0];
          let value = v[1];
          // Add the key and value to the new object
          obj[key] = value;
      });
      // Return the object
      return obj;
}

console.log(
      arr2obj([
          ["Ram","Burger" ],
          ["Shyam", "Spring Rolls"],
          ["Rahul", "Pizza"],
          ["Neha", "Ice Cream"],
      ])
);
</script>
</body>
</html>
```

Problem Statement 2:

```html
<!DOCTYPE html>
<html lang="en">
<head>
   <title>JS Objects Practice Code </title>
</head>
<body>
    <h1>Output is in your console window</h1>
<script type="text/javascript">
```

```
    var student =   {
        Name : "Rahul Verma",
        Class : "10th",
        Rollno : 31,
        Subject : 'English',
        Marks : '34'
    };
    console.log(student);
    alert(JSON.stringify(student, null, 4));
    delete student.Class;
    delete student.Rollno;
    console.log(student);
    alert(JSON.stringify(student, null, 4));
</script>
</body>
</html>
```

Problem Statement 3:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>JS Objects Practice Code </title>
</head>
<body>
    <h1>Output is in your console window</h1>
<script type="text/javascript">
    function invert_key_value(obj) {
        var result = {};
        var keys = _keys(obj);
        for (var i = 0, length = keys.length; i < length; i++) {
          result[obj[keys[i]]] = keys[i];
        }
        return result;
    }
    function _keys(obj)
    {
        if (!isObject(obj)) return [];
        if (Object.keys) return Object.keys(obj);
        var keys = [];
        for (var key in obj) if (_.has(obj, key)) keys.push(key);
        return keys;
    }
    function isObject(obj)
    {
        var type = typeof obj;
        return type === 'function' || type === 'object' && !!obj;
    }
    let obj = {Name: "Virat", Sports: "Cricket", Age: "33"};
    console.log(obj);
    alert(JSON.stringify(obj,null,4));
    let newobj=invert_key_value(obj);
```

```
    alert(JSON.stringify(newobj,null,4));
    console.log(newobj);
</script>
</body>
</html>
```

Problem Statement 4:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>JS Objects Practice Code </title>
</head>
<body>
    <h1>Output is in your console window</h1>
<script type="text/javascript">
    function hasKey(obj, key) {
        return obj != null && hasOwnProperty.call(obj, key);
     }
    let obj={Virat: "33", Rohit: "35", Dhoni: "41"};

    alert(hasKey(obj,"Virat"));
    console.log(hasKey(obj,"Virat"));
</script>
</body>
</html>
```