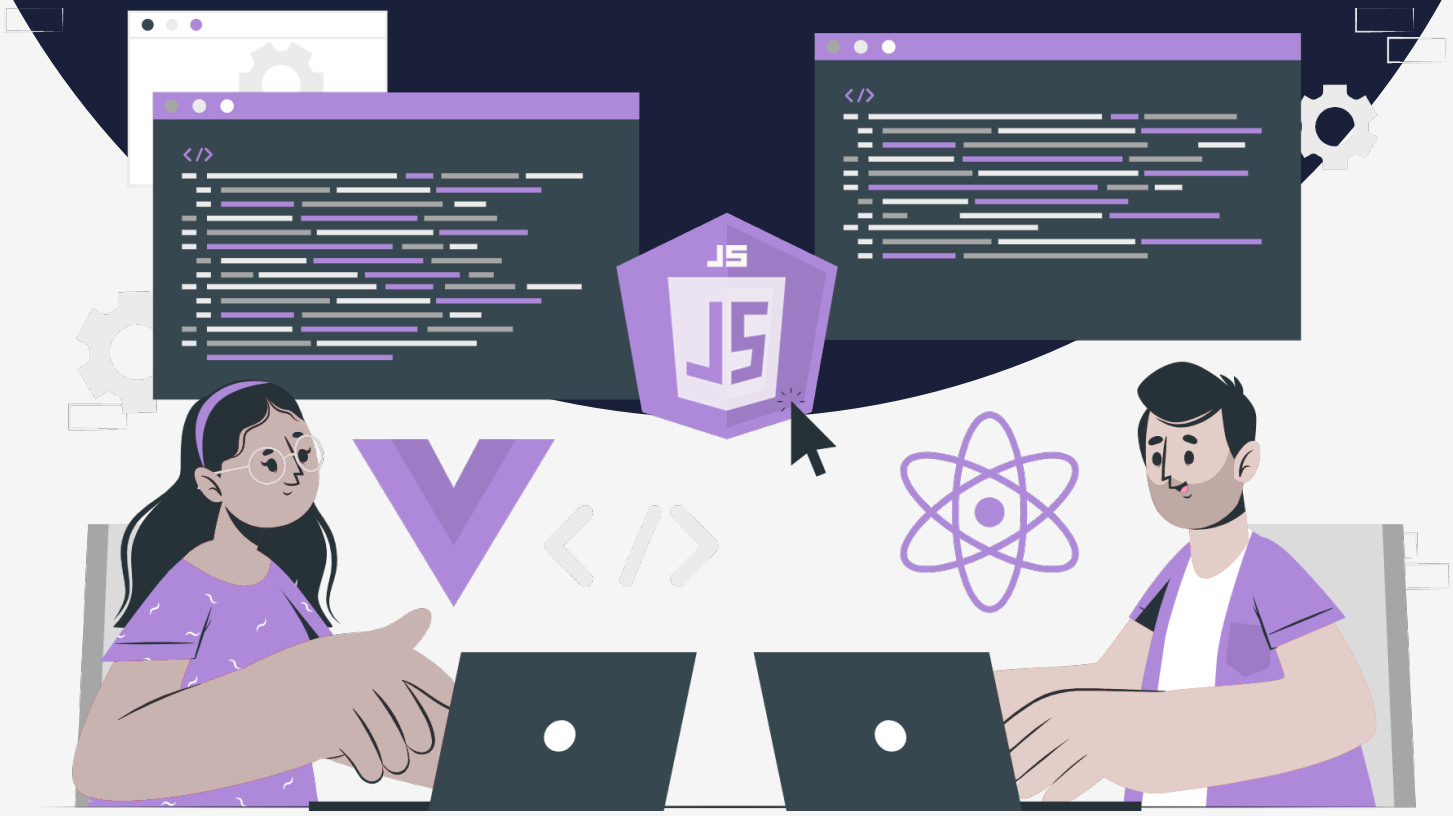
Lesson:

Destructuring during iteration



PW SKILLS

Topics Covered:

1. Introduction to destructuring during iteration.
2. Implementation.

Array destructuring during iteration is a very useful feature in Javascript. It allows us to extract the values and assign them to different variables during iterations itself. During iteration, we can extract the values we need and perform operations on them in the iteration process. By using destructuring, you can make the code more concise and readable, as it eliminates the need to access the values in the array using indexes.

This feature is useful when we deal with arrays of objects where we only need specific properties or values in each iteration. This feature makes it easier to work with arrays and is a common practice in modern JavaScript development.

Let's now look at some examples of destructuring arrays during iteration. Imagine an e-commerce site has stored the name of the product and its price as an array and all the products are stored in another array. Now, you are assigned a task to print the product name and its price. We can do this by destructuring during iteration.

```
// E-commerce site products and their prices.
let productDetails = [
  ["Charger", 500],
  ["HDMI cable", 200],
  ["Mobile Phone", 30000],
  ["Laptop", 90000],
  ["Monitor", 10000],
];

// Print all the items along with their prices.

for ([productName, price] of productDetails) {
  console.log(`The product ${productName} is priced at Rs.${price}`);
}

/*
OUTPUT:

The product Charger is priced at Rs.500
The product HDMI cable is priced at Rs.200
The product Mobile Phone is priced at Rs.30000
The product Laptop is priced at Rs.90000
The product Monitor is priced at Rs.10000
*/
```

The destructuring during iteration is more helpful while we deal with an array of objects too. If we have an array of student details and wish to extract only some of the properties from the object during iteration we can make use of destructuring during iteration.

```
// Student Registry

let studentDetails = [
  { name: "Mithun", registrationNumber: "PW6090", numberOfCoursesEnrolled: 5 },
  { name: "Alka", registrationNumber: "PW6091", numberOfCoursesEnrolled: 2 },
  { name: "Prabir", registrationNumber: "PW6092", numberOfCoursesEnrolled: 3 },
  { name: "Shivam", registrationNumber: "PW6093", numberOfCoursesEnrolled: 9 },
  { name: "Vinay", registrationNumber: "PW6094", numberOfCoursesEnrolled: 2 },
];

// Print student name and the number of courses enrolled

for ({ name, numberOfCoursesEnrolled } of studentDetails) {
  console.log(`The student ${name} has enrolled to ${numberOfCoursesEnrolled}
courses at PW`);
}

/*
OUTPUT:

The student Mithun has enrolled to 5 courses at PW
The student Alka has enrolled to 2 courses at PW
The student Prabir has enrolled to 3 courses at PW
The student Shivam has enrolled to 9 courses at PW
The student Vinay has enrolled to 2 courses at PW
*/
```