

## Exercise: Build a User Profile Component with Destructuring & Higher-Order Methods

### Objective:

Trainees will **extract data using destructuring** and **use array methods** to display a list of transactions in a simple profile UI.

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### Step 1: Set Up the Project

#### Instructions:

1. **Create a folder** for this project.
  2. Inside the folder, **create three files**:
    - `index.html` (for structure)
    - `styles.css` (for styling)
    - `script.js` (for logic)
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### Step 2: Define the User Data (JavaScript)

#### Instructions:

1. Open `script.js`
2. Copy and paste the following object:

```
const user = {
  id: "USER-123456",
  name: {
    first: "Alice",
    last: "Liddell"
  },
  email: "alice@example.com",
  address: {
    shipping: {
      street: "123 Rabbit Hole",
      city: "Wonderland",
      state: "Fantasy",
      postalCode: "12345",
    }
  }
}
```

```
        country: "WL"
    },
    billing: {
        street: "456 Mad Hatter Lane",
        city: "Tea Party",
        state: "Fantasy",
        postalCode: "67890",
        country: "WL"
    }
},
payment: {
    total: "100.00",
    currency: "USD",
    details: {
        subtotal: "75.00",
        tax: "15.00",
        shipping: "10.00"
    },
    transactions: [
        { id: "TXN-123", amount: "50.00", description: "Magic Potion"
    },
        { id: "TXN-456", amount: "50.00", description: "Enchanted
Sword" }
    ]
}
};
```

### Step 3: Destructure User Data

#### Instructions:

1. Use **destructuring** to extract values from `user` in `script.js`:



### Step 4: Build the HTML Structure

#### Instructions:

1. Open `index.html`
2. Copy & paste the following structure:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>User Profile</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

  <div class="user-profile">
    <h1>User Profile</h1>

    <section id="personal-info"></section>
    <section id="shipping-address"></section>
    <section id="billing-address"></section>
    <section id="transactions"></section>
  </div>

  <script src="script.js"></script>
</body>
</html>
```

## Step 5: Inject User Data into HTML

### Instructions:

1. Use **document.getElementById** to select sections in `script.js`.
2. Use **template literals** to inject destructured data into the UI.

## Step 6: Display Transactions Using `map()`

### Instructions:

1. Use `.map()` to loop over `transactions` and generate a transaction list.
2. Append the results to `transactions` section.

## Step 7: Style the Profile Page

### Instructions:

1. Open `styles.css`
2. Add styling:

```
body {  
  font-family: Arial, sans-serif;  
  background-color: #f8f9fa;  
  padding: 20px;  
}  
  
.user-profile {  
  max-width: 500px;  
  margin: auto;  
  padding: 20px;  
  background: white;  
  border-radius: 10px;  
  box-shadow: 0px 4px 6px rgba(0, 0, 0, 0.1);  
}
```

```
h1, h2 {  
  color: #152A36;  
}  
  
ul {  
  list-style: none;  
  padding: 0;  
}  
  
li {  
  background: #f1f1f1;  
  padding: 10px;  
  margin-top: 5px;  
  border-radius: 5px;  
}
```