### **Exercise 1: Using find()**

**Scenario:** You have an array of products fetched from the backend, and you need to display the details of a product when a user clicks on it.

*const* products = [

{ id: 1, name: "Laptop", price: 999 },

{ id: 2, name: "Mouse", price: 25 },

{ id: 3, name: "Keyboard", price: 75 }

];

// Task 1: Find the product with id 2 and display its details.

### **Exercise 2: Using filter()**

**Scenario:** After fetching a list of orders from the backend, you want to filter out the completed orders to display only pending orders on the frontend.

*const* orders = [

{ id: 1, status: "completed" },

{ id: 2, status: "pending" },

{ id: 3, status: "pending" }

];

// Task: Create a new array that contains only the pending orders.

### 

### **Exercise 3: Using map()**

**Scenario:** You receive an array of user reviews from the backend and want to display only the review texts in a list format on the frontend.

*const* reviews = [

{ id: 1, text: "Great product!", rating: 5 },

{ id: 2, text: "Not bad.", rating: 3 },

{ id: 3, text: "Wouldn't recommend.", rating: 1 }

];

// Task: Generate a new array containing only the review texts.

// Output: ["Great product!", "Not bad.", "Wouldn't recommend."]

### **Exercise 4: Using includes()**

**Scenario:** You have a list of categories available on the backend, and you want to check if a particular category is selected by the user for filtering products.

*const* availableCategories = ["electronics", "furniture", "clothing"];

*const* selectedCategory = "electronics";

// Task: Check if selectedCategory is included in availableCategories.

// Output: true

### 

### **Exercise 5: Combined Usage filter()+ find()**

**Scenario:** You have a shopping cart that needs to display only items that are currently available in stock. You fetch the products and the cart items from the backend.

*const* cartItems = [

{ productId: 1, quantity: 2 },

{ productId: 2, quantity: 1 },

{ productId: 3, quantity: 1 }

];

*const* availableProducts = [

{ id: 1, name: "Laptop", inStock: true },

{ id: 2, name: "Mouse", inStock: false },

{ id: 3, name: "Keyboard", inStock: true }

];

// Task: Create a new array of cart items that are in stock.

// Output: [{productId:1, quantity:2}, {productId:3, quantity:1}];