

## JavaScript Objects

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### Logic-Based (Objects + Arrays + Loops)

#### 1. Display Student Info

Given an array of student objects, display each student's name and marks in a table using DOM.

#### 2. Find Top Scorer

From a list of student objects with names and scores, find and display the top scorer.

#### 3. Filter Products by Price Range

Create a function that takes a min and max price and filters an array of product objects accordingly.

#### 4. Count Word Frequencies

Given a paragraph from a textarea, count the frequency of each word and display it as a list.

#### 5. Group Users by Role

Given an array of user objects (`{name, role}`), group and display users under role headings.

#### 6. Sort Products by Price

Display a list of products sorted by price (ascending/descending toggle via button).

#### 7. Dynamic Form Inputs to Object

Create a form with name, email, and age. On submit, convert the input into an object and show the result.

#### 8. Render Nested Object Data

Given a nested object like a user with address, display all info in a structured format in the DOM.

#### 9. Calculate Cart Total

Given an array of cart items (`{name, price, quantity}`), display a full cart with totals using DOM.

#### 10. Checkbox Filter

Display a list of items. Use checkboxes to filter them (e.g., categories like "Fruits", "Vegetables").

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## DOM Interaction + Objects + Events

### 11. Live Search List

From an array of names or products, filter the list as the user types into an input field.

### 12. To-Do App with Object Tasks

Each to-do item is an object (`{title, completed}`). Render list, allow marking as complete, and remove on click.

### 13. Form to Object Array

Let users submit a form multiple times. Store each entry as an object in an array and display all entries in real time.

### 14. Edit Object in List

Display a list of users with "Edit" buttons. On click, allow editing and update the object and UI.

### 15. Dynamic Table Generator

Given an array of objects, generate a table with headers based on object keys and rows based on values.

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## Problem Solving / Deeper Logic

### 16. Frequency of Characters

Take an input string, count character frequencies using an object, and display results.

### 17. Nested Category Display

Render categories and subcategories from a nested object structure using recursion (tree view style).

### 18. Sort by Multiple Properties

Sort an array of student objects first by grade, then by name if grades are equal.

### 19. Search and Highlight

Search through an array of paragraph texts, highlight matches using DOM manipulation.

### 20. Custom Dropdown from Object Data

Use a country object (`{code: "IN", name: "India"}`) to populate a dropdown. On select, show selected country's details.