

JavaScript Exercises

Part A: Basic Syntax & Data Types

1. Greet the User

Ask the user their name using `prompt()`, and greet them with a message like:

```
"Hello, [name]!"
```

2. Simple Calculator

Ask the user for two numbers using `prompt()`, convert them to numbers, and print their **sum**, **difference**, **product**, and **quotient**.

Part B: Conditional Statements (If/Else)

3. Age Checker

Ask the user for their age. Based on the input:

- If age < 18 → "You are a minor"
- If age is between 18 and 60 → "You are an adult"
- If age > 60 → "You are a senior citizen"

4. Number Guessing Game

Set a secret number (e.g., 7). Ask the user to guess the number using `prompt()`.

Use `if/else` to give feedback: "Too low", "Too high", or "Correct!"

Part C: Loops

5. Print 1 to 10

Use a `for` loop to print numbers from 1 to 10.

6. **Multiplication Table**

Ask the user for a number. Print the multiplication table for that number up to 10.

7. **Sum of Even Numbers**

Use a loop to find and print the sum of even numbers between 1 and 100.

Part D: Arrays & Array Methods

8. **Shopping List**

- Create an array with 5 items.
- Use `push()` to add an item.
- Use `pop()` to remove the last item.
- Print the final array using `console.log()`.

9. **Reverse an Array**

Create an array of numbers and use `.reverse()` to print the reversed array.

10. **Search in Array**

- Create an array of colors (e.g., `["red", "blue", "green"]`)
 - Ask the user to enter a color.
 - Use `.includes()` to check if the color exists and print a message accordingly.
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Bonus Challenges

11. **FizzBuzz**

- Print numbers from 1 to 30.

- For multiples of 3, print "Fizz"
- For multiples of 5, print "Buzz"
- For multiples of both, print "FizzBuzz"

12. Palindrome Checker

- Ask the user to enter a word.
 - Check if the word reads the same forward and backward.
 - Print whether it is a palindrome or not.
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Mini Projects

1. Quiz App

- Create a quiz game with 5 multiple choice questions.
- Use `prompt()` to show each question and options.
- Store the questions, options, and correct answers in arrays.
- Use `if` statements to check answers.
- Show the total score at the end using `alert()` or `console.log()`.

2. Number Guessing Game

- Generate a random number between 1 and 100 using `Math.random()`.
- Ask the user to guess the number using `prompt()`.
- Give hints using `if` statements:
"Too high", "Too low", or "Correct".
- Keep track of the number of attempts.

- Display the number of attempts taken to guess correctly.