

JAVASCRIPT TASK (8 hours)

Task 1: Console Information Program

Requirements

- Create variables to store:
 - full name (string)
 - email ID (string)
 - current year (number)
- Create at least two numeric variables.
- Perform at least five different mathematical operations using those numbers
- Display all personal details using `console.log()`.
- Display the result of each mathematical operation using `console.log()` with clear labels.

Task 2: Arithmetic Operations Program

Requirements

- Create two numeric variables.
- Perform the following operations:
 - addition
 - subtraction
 - multiplication
 - division
 - modulus
 - power
- Store each operation result in a separate variable.
- Log each result to the console with a meaningful description.

Task 3: Simple Interest Calculator

Requirements

- Create variables for:
 - principal amount (number)
 - rate of interest (number)
 - time period (number)
- Calculate simple interest using the formula:
 - $(\text{principal} * \text{rate} * \text{time}) / 100$
- Store the calculated interest in a variable.

- Display the final result using `console.log()` in sentence format.

Task 4: String Processing Program

Requirements

- Create a variable to store a full name (string).
- Convert the string to uppercase and store the result.
- Convert the string to lowercase and store the result.
- Find and store the length of the string.
- Extract the first name from the full name.
- Log all results individually using `console.log()` with proper labels.

Task 5: Template Literal Output Program

Requirements

- Create variables to store:
 - name (string)
 - role (string)
 - organization or company name (string)
- Use template literals to generate a formatted introduction message.
- Display the generated message using `console.log()`.

Task 6: Variable Behavior Program

Requirements

- Declare one variable using `var`.
- Declare one variable using `let`.
- Declare one variable using `const`.
- Attempt to reassign values to each variable.
- Attempt redeclaration where applicable.
- Log the results to the console.
- Add comments explaining the observed behavior.

Task 7: HTML and JavaScript Integration

Requirements

- Create a basic HTML file.
- Create an external JavaScript file.
- Link the JavaScript file to the HTML file.

- Use JavaScript to log a message when the page loads.
- Display the message using `console.log()`.

Task 8: Student Marks Calculation Program

Requirements

- Create variables to store marks of five subjects.
- Calculate the total marks and store the result.
- Calculate the average marks and store the result.
- Display total and average using template literals.
- Log the output to the console.

Task 9: Email String Analyzer Program

Requirements

- Create a variable to store an email address.
- Extract the username part from the email.
- Extract the domain name from the email.
- Store both values in separate variables.
- Log the username and domain separately using `console.log()`.

Task 10: JavaScript Utility Program (Programming Mandatory)

Requirements

- Create variables to store:
 - user name (string)
 - age (number)
 - marks of five subjects (numbers)
- Calculate total marks.
- Calculate average marks.
- Convert the user name to uppercase.
- Find the length of the user name.
- Display all calculated and processed values using template literals and
- Log the final output using `console.log()`.

