

**Assignment Code: FSD-AG-005**

## JavaScript - Arrays, Functions & More | **Assignment**

**Instructions:** Carefully read each question. Use Google Docs, Microsoft Word, or a similar tool to create a document where you type out each question along with its answer. Save the document as a PDF, and then upload it to the LMS. Please do not zip or archive the files before uploading them. Each question carries 20 marks.

**Total Marks:** 220

**Question 1 :** Create an object named `student` with the following properties:

- name: "Rahul"
- age: 21
- courses: an array containing "Math", "Physics", and "Chemistry"

Then, perform the following operations:

1. Add a new property `grade` with the value "A".
2. Update the `age` to 22.
3. Delete the `courses` property.

**Answer:**

**Question 2:** Write a function `checkEligibility` that takes an age as a parameter and returns:

- "Eligible" if age is 18 or above
- "Not Eligible" if age is below 18

Use an `if-else` statement.

**Answer:**

**Question 3:** Write a function `getDayName` that takes a number (1-7) and returns the corresponding day of the week. Use a `switch` statement.

**Answer:**

**Question 4:** Rewrite the `checkEligibility` function from Question 2 using the ternary operator.

**Answer:**

**Question 5:** Given an array `numbers = [1, 2, 3, 4, 5]`, perform the following:

1. Use a `for` loop to print each number.
2. Use a `while` loop to print each number.
3. Use a `for-in` loop to print each index.
4. Use a `for-of` loop to print each number.

**Answer:**

**Question 6:** Explain what functions are in JavaScript and provide an example of a function that adds two numbers.

**Answer:**

**Question 7:** Convert the `add` function from Question 6 into an arrow function.

**Answer:**

**Question 8:** Write a function `greet` that takes a name and a callback function. The `greet` function should call the callback with the name.

**Answer:**

**Question 9:** Given the array:

```
const fruits = ["apple", "banana", "cherry"];
```

1. What is the length of the array?
2. Add "date" to the end of the array using the `length` property.

**Answer:**

**Question 10:** Given the string `text = " Hello World! "`, perform the following:

1. Trim the whitespace.
2. Convert to uppercase.
3. Check if it includes "World".

**Answer:**

**Question 11:** Given the array `numbers = [1, 2, 3, 4, 5]`, perform the following:

1. Add 6 to the end.
2. Remove the first element.
3. Find the index of 4.
4. Check if all numbers are greater than 0.

**Answer:**