Lab: JavaScript Intro

Objective: To reinforce your understanding of fundamental JavaScript concepts.

Instructions:

1. Open a text editor or an integrated development environment (IDE) for coding.
2. Write JavaScript code to solve the following problems.
3. Save your file with a .js extension.
4. Test your code by running it in a web browser or a JavaScript environment.

Questions:

1. **Variable Declaration and Assignment:**
    - Declare a variable called `userName` and assign your name to it.
    - Declare another variable called `userAge` and assign your age to it.
2. **Data Types:**
    - Create variables for the following data types:
        - `isStudent` (boolean) - Set it to true if you are a student, otherwise set it to false.
        - `favoriteNumber` (number) - Set it to your favorite whole number.
        - `hobbies` (array) - Create an array containing three of your favorite hobbies.
        - `userInfo` (object) - Create an object with keys for name, age, student status, favorite number, and hobbies. Use the variables created above to populate the values.
3. **Functions:**
    - Write a function called `greetUser` that takes the `userName` as a parameter and logs a personalized greeting message to the console.
    - Call the `greetUser` function, passing the `userName` variable as an argument.
4. **Conditional Statements:**
    - Write a function called `checkAge` that takes the `userAge` as a parameter and logs different messages based on the age:
        - If the age is less than 18, log "You are a minor."
        - If the age is between 18 and 65 (inclusive), log "You are an adult."
        - If the age is greater than 65, log "You are a senior citizen."
    - Call the `checkAge` function, passing the `userAge` variable as an argument.
5. **Loops:**
    - Write a loop that iterates over the `hobbies` array and logs each hobby to the console.

6. **Additional Loop:**

- ❿ Create a new array called `randomNumbers` and populate it with five random numbers.
- ❿ Write a loop that iterates over the `randomNumbers` array and logs each number to the console.

7. **Additional Function:**

- ❿ Write a function called `sumArray` that takes an array of numbers as a parameter and returns the sum of all the numbers.
- ❿ Call the `sumArray` function, passing the `randomNumbers` array as an argument, and log the result to the console.

8. **Additional Variable:**

- ❿ Create a variable called `birthYear` and calculate the birth year based on the current year and your age.
- ❿ Log a message to the console that includes your name, age, birth year, and a statement about being a student or not.

Feel free to experiment further and add more complexity to the exercises based on your comfort level and learning goals. Happy coding!