Core Javascript-2

Assignment Questions

PW SKILLS

NOTE:

1. **Please go through the questions properly before attempting to solve them through code or theory.**
2. **Wherever you find take input means that you should create a variable and assign values by yourself.**
3. **You need not submit assignments anywhere, you will be getting the solutions soon for validating your answers.**

Good luck, and Happy Learning!

1. Create an arrow function called square that takes a number as an argument and returns its square. Use the arrow function to calculate the square of a given number and display the result.

2. The following is an array of 10 students ages:

=> const ages = [19, 22, 19, 24, 20, 25, 26, 24, 25, 24]

- **Sort the array and find the min and max age.**
- **Find the median age(one middle item or two middle items divided by two)**
- **Find the average age(all items divided by number of items)**
- **Find the range of the ages(max minus min)**
- **Compare the value of (min - average) and (max - average), use abs() method**

3. Create a Map to store contact information (name, age, email, location) and implement a function to retrieve contact details by name.

4. Create two objects person1 and person2 with properties name and age. Create a function “introduce” that prints "Hello, I'm [name], and I'm [age] years old." Use the call method to make person2 introduce itself using the introduce function.

5. You are developing a program to manage a list of unique items. Write a JavaScript program that uses a Set to store a collection of unique numbers. Use the Map object to associate each number with its square. Finally, print both the unique numbers and their corresponding squares.

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- **Create a simple JavaScript function named displayInfo that takes two parameters (name and role) and logs a message.**
- **Use call to invoke the displayInfo function with specific arguments.**
- **Use apply to invoke the displayInfo function with arguments passed as an array.**
- **Create another function named greet that logs a greeting with this context.**
- **Use bind to create a new function boundGreet with a specific context and log the greeting.**

7. Tasks:

- **Create an object named calculator with methods add, subtract, and multiply.**
- **Implement the calculate method in the calculator object, which takes an operation ('add', 'subtract', or 'multiply') and two numbers.**
- **Use call to perform an addition operation using the calculate method.**
- **Use apply to perform a multiplication operation using the calculate method with arguments as an array.**
- **Create another object named discountCalculator with a discount percentage property and a method applyDiscount.**
- **Use bind to create a new function calculateDiscount that is bound to the discountCalculator object and can be reused.**