

JavaScript Assignment

1. Write a function that takes a string as input and returns its length. Demonstrate the function with different test cases.
2. What does the `charAt()` method do in JavaScript?
3. Write a program that takes a string and an index as input and returns the character at that index using the `charAt()` method.
4. Explain the purpose of the `charCodeAt()` method.
5. Write a function that takes a string and an index as input and returns the ASCII value of the character at that index using `charCodeAt()`.
6. Describe the differences between `slice()`, `substring()`, and `substr()` methods in JavaScript.
7. Provide examples demonstrating the usage of each method.
8. Write a function that converts a given string to uppercase and another function to convert it to lowercase.
9. What is the purpose of the `join()` method in JavaScript?
10. Write a program that demonstrates the usage of the `join()` method to concatenate array elements into a string.
11. Explain the use cases of `trimStart()` and `trimEnd()` methods in JavaScript.
12. Write a program that takes a string with leading and trailing whitespace and removes them using `trimStart()` and `trimEnd()` respectively.
13. What do `padStart()` and `padEnd()` methods do in JavaScript?
14. Write a program that pads a given number with leading zeros using `padStart()` and another program to pad it with trailing zeros using `padEnd()`.
15. Describe the purpose of the `repeat()` method in JavaScript.
16. Write a program that repeats a given string a specified number of times using the `repeat()` method.
17. Explain the functionality of the `replace()` method in JavaScript.
18. Write a program that replaces a specific substring within a string with another substring using the `replace()` method.