

String Functions:

1. `len()`: Returns the length (number of characters) of a string.
2. `upper()`: Converts a string to uppercase.
3. `lower()`: Converts a string to lowercase.
4. `capitalize()`: Capitalizes the first character of a string.
5. `title()`: Converts the first character of each word in a string to uppercase.
6. `strip()`: Removes leading and trailing whitespace characters from a string.
7. `replace()`: Replaces occurrences of a substring with another substring.
8. `count()`: Counts the occurrences of a specific substring in a string.
9. `find()`: Finds the index of the first occurrence of a substring in a string.
10. `index()`: Finds the index of the first occurrence of a substring (similar to `find()`).
11. `startswith()`: Checks if a string starts with a specific substring.
12. `endswith()`: Checks if a string ends with a specific substring.
13. `split()`: Splits a string into a list of substrings based on a delimiter.
14. `join()`: Joins elements of an iterable into a single string using a specified separator.
15. `isalpha()`: Returns True if all characters in the string are alphabetic, otherwise False.
16. `isdigit()`: Returns True if all characters in the string are digits, otherwise False.
17. `isnumeric()`: Returns True if all characters in the string are numeric, otherwise False.
18. `islower()`: Checks if the given string is in lowercase
19. `isupper()`: Checks if the given string is in uppercase
20. `isalnum()`: Returns True if all characters in the string are alphanumeric, otherwise False.
21. `isspace()`: Returns True if all characters in the string are whitespace characters, otherwise False.
22. `startswith()`: Checks if a string starts with a specific substring.
23. `endswith()`: Checks if a string ends with a specific substring.

Questions

1. Given the string `text = "Hello, World!"`, use the `len()` function to find the length of the string.
2. Create a string `sentence = "I am learning Python programming."` and use the `upper()` function to convert it to uppercase.
3. Using the `count()` function, find out how many times the letter "a" appears in the string "banana".
4. Given the string `message = " Welcome to Python! "`, use the `strip()` function to remove leading and trailing spaces.
5. Create a string `word = "excellent"` and use the `replace()` function to replace "cell" with "cent".

6. Using the `find()` function, determine the index of the first occurrence of the substring "dog" in the string "The quick brown fox jumps over the lazy dog."
7. Given the string `text = "one, two, three, four, five"`, use the `split()` function to split it into a list of words.
8. Create a string `sentence = "Python is fun!"` and use the `startswith()` function to check if it starts with the word "Python"
9. Using the `join()` function, combine the elements of the list `words = ["Hello", "world", "Python"]` into a sentence.
10. Given the string `phrase = "Hello there, how are you?"`, use the `capitalize()` function to capitalize the first letter of the sentence.x.