

In []: Create a function to calculate the product of all numbers in a flat list.

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In [1]: def calculate_product(input_list):
    flat_list = [item for sublist in input_list for item in (sublist if isinstance(sublist, list) else [sublist])]
    numeric_values = [num for num in flat_list if isinstance(num, (int, float))]

    if not numeric_values:
        return None # No numeric values found

    product = 1
    for num in numeric_values:
        product *= num
    return product

# Given list
list1 = [1, 2, 3, 4, [44, 55, 66, True], False, (34, 56, 78, 89, 34), {1, 2}]

# Calling the function
result = calculate_product(list1)
print(result)
```

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In []: Encrypt a message based on the given logic.

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In [2]: def encrypt_message(input_sentence):
    encrypted_message = ""
    for char in input_sentence.lower():
        if char.isalpha():
            encrypted_message += chr(ord('z') - (ord(char) - ord('a')) + 1)
        elif char.isspace():
            encrypted_message += '$'
        else:
            encrypted_message += char

    return encrypted_message

# Given input sentence
input_sentence = "I want to become a Data Scientist."

# Calling the function
encrypted_output = encrypt_message(input_sentence)
print(encrypted_output)
```

r\$dzmg\$gl\$yvxl\$nv\$z\$wzgz\$hxrvmgrhg.

In []:

