

1. You like using QR code for your firm/domain, you have QR code on your product. Now you would like to generate code for your products in python using QR code.

(a). Write a function "EncodeQR" which takes the name of the product(in a string) at most 5 characters with a minimum of one letter and returns back a list containing the encoded QR code. Use lambda functions wherever you find it appropriate.

Example if the input is Hi

H - Ascii value is 72, Binary conversion of 72 is 01001000 as this is the first character

pad it with 10000000 so the encoded code for H is1000000001001000

i-Ascii value is 105,Binary conversion of 105 is 01101001 and this is second character

pad it with 01000000 so the encoded code for 'i' is 0100000001101001 Hi-10000000010010000100000001101001 .

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In [ ]: def EncodeQR(name):

    padding = 0b10000000

    if len(name) < 1 or len(name) > 5:
        print("Upto 5 characters long.")
    else:
        encoded_arr = []

        for char in name:
            binary_value = format(ord(char), '08b')
            shifted_number = padding << 1
            encoded_arr.append(str(bin(shifted_number)[2:]) + binary_value)

        return ''.join(encoded_arr)

    p_name = input("Enter Product Name: ")
    encoded_res = EncodeQR(p_name)
    print(encoded_res)
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1000000000100100010000000001101001