Python Coding test

(New)

Q1

Write a Python program that takes three names as input from the user and prints them in alphabetical order.

- Input: John, Alice, Bob
- Expected Output: Alice Bob John

Q2

Write a program that takes an integer as input and checks whether it is a prime number or not.

- Input: 29
- Expected Output: 29 is a prime number.

Q3

Write a Python program using a list comprehension to create a list of the first letters of each sentence in a given list of sentences.

- List: ['Hello world.', 'Python is fun.', 'Data Science is interesting.']
- Expected Output: ['H', 'P', 'D']

Q4

Find the second shortest name in the given list.

- List: ['Anna', 'Jonathan', 'Mike', 'Susan', 'Paul']
- Expected Output: Susan

Q5

Write a Python program to generate all the multiples of a given number up to 100 and also count how many are even and how many are odd.

- Input: 15
- Expected Output: 15, 30, 45, 60, 75, 90
    - Even Count: 2
    - Odd Count: 4

Q6

Given tpl = (10, 'orange', 3.5, [20, 40, 60], 'apple', 5, [10, 30, 50], 70, 'grape'), update 40 to 'Hello' and then print the tuple.

- Expected Output: (10, 'orange', 3.5, [20, 'Hello', 60], 'apple', 5, [10, 30, 50], 70, 'grape')

Q7

Generate the given outputs from the provided list.

- List: [2, 7, 9, [3, 'hello', 8], 'city', 3.14, 'world', [14, 24, 34]]
- Outputs:
    - [[14, 24, 34], 3.14, [3, 'hello', 8], 7]
    - [3, 'hello']
    - 24

Q8

Write a Python program to create a list of numbers that are multiples of 7 between 1 and 100 (inclusive) and print the list.

- Expected Output: [7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98]

Q9

Write a program that takes two strings and a concatenation operator, then concatenates the strings based on the operator.

- Example:
    - Enter the 1st string: Hello
    - Enter the 2nd string: World
    - Enter the operator: +
    - Output: HelloWorld

Q10

Write a Python program to create a dictionary using dictionary comprehension where the keys are words from a list, and the values are the lengths of these words.

- List: ['apple', 'banana', 'cherry']
- Expected Output: {'apple': 5, 'banana': 6, 'cherry': 6}