

## ANSWER 1)

```
In [3]: def uni_char(input_str):
        upper_set = set()
        lower_set = set()

        for char in input_str:
            if char.isupper():
                upper_set.add(char)
            elif char.islower():
                lower_set.add(char)

        return {
            "UPPERCASE": ", ".join(upper_set),
            "Lowercase": ", ".join(lower_set)
        }
```

```
In [4]: user_input = input("Enter a string: ")
        result1 = uni_char(user_input)
        print("\nUnique Characters:")
        print(result1["UPPERCASE"])
        print(result1["Lowercase"])
```

Enter a string: Hi My Name Is Shantanu

Unique Characters:

S, N, H, M, I

n, e, a, h, i, s, t, y, u, m

## ANSWER 2)

```
In [1]: def most_repeated(input_str):
        word_counts = {}
        letter_counts = {}

        words = input_str.lower().split()
        letters = ''.join(filter(str.isalpha, input_str)).lower()

        for word in words:
            word_counts[word] = word_counts.get(word, 0) + 1

        for letter in letters:
            letter_counts[letter] = letter_counts.get(letter, 0) + 1

        max_word = max(word_counts, key=word_counts.get)
        max_letter = max(letter_counts, key=letter_counts.get)

        return {
            "word": f"{max_word}-{word_counts[max_word]}",
            "Alphabet": f"{max_letter}-{letter_counts[max_letter]}"
        }
```

```
In [3]: user_input = input("Enter a string: ")
        result2 = most_repeated(user_input)
        print("\nMost Repeated Word and Letter:")
        print(result2["word"])
        print(result2["Alphabet"])
```

Enter a string: can you can a can as a canner can can a can

Most Repeated Word and Letter:  
can-6  
a-11