```
In [21]: import json


         # Input prompt
         word = input("Give a word: ").upper()
```

```
In [22]: # Count the frequency of each character
         number_of_letters = {}

         for char in word:
             if char in number_of_letters.keys():
                 number_of_letters[char] += 1
             else:
                 number_of_letters[char] = 1

         number_of_letters
```

Out[22]: {'M': 1, 'A': 4, 'S': 2, 'R': 1, 'N': 1, 'D': 1, 'U': 1, 'B': 1}

```
In [24]: # Construct the output dictionary
         word_dict = [
                 {"word": word.title()},
                 {"letters": len(word)},
                 number_of_letters
         ]
```

```
In [25]: # Pretty-print the JSON output
         print(json.dumps(word_dict, indent=4))
```

```
[
    {
        "word": "Massaranduba"
    },
    {
        "letters": 12
    },
    {
        "M": 1,
        "A": 4,
        "S": 2,
        "R": 1,
        "N": 1,
        "D": 1,
        "U": 1,
        "B": 1
    }
]
```

```
In [45]: word_dict = [
                 {"word": word.title()},
                 {"letters": len(word)},
                 {letter: (sum(len(char) in set(word) for char in word)) for letter in wo
         ]
```

```
In [46]: print(json.dumps(word_dict, indent=4))
```

```
[
    {
        "word": "Massaranduba"
    },
    {
        "letters": 12
    },
    {
        "M": 0,
        "A": 0,
        "S": 0,
        "R": 0,
        "N": 0,
        "D": 0,
        "U": 0,
        "B": 0
    }
]
```

In [ ]: