datascience_assignment_4.2

July 11, 2018

0.1 Python program that maps list of words into a list of integers representing the lengths of the corresponding words .

0.2 Solution:

0.2.1 Steps:

- Function map_string_length takes argument list lst and using map for each string element to length of element and return the list

```python
In [9]: # Function map_string_length takes argument list lst and using map for each string elem
        # length of element and return the list
        def map_string_length(lst):
            return list(map((lambda element: len(element)), lst))

        # Call map_string_length on list ab,cde,erty
        lst = ["ab","cde","erty"]
        print(str(map_string_length(lst)))
```

```
[2, 3, 4]
```

0.3 Python function which takes a character (i.e. a string of length 1) and returns True if it is a vowel, False otherwise.

0.4 Solution:

0.4.1 Steps:

- Function isVowel which takes a string of length, convert to lower and check if it is in any of vowel letter then return True, return False otherwise. If s is None or not a string or blank string an exception of type ValueError will be raised with message "Input s to function isVowel must be string of length 1"

```python
In [15]: # Function isVowel which takes a string of length 1, covert ot lower and
         # check if it is in any of vowel letter then return True, False otherwise
         #If s is None or not a string or blank string an exception of type ValueError
         # will be raised with message "Input s to function isVowel must be string of length 1
         def isVowel(s):
             # If s is None or not a string or blank string raise an Exception
```

1

```python
        if s is None or isinstance(s, str) == False or s == "":
            raise ValueError("Input s to function isVowel must be string of length 1")

        # if lower value of is any of 'a', 'e', 'i', 'o', 'u' then return True
        # else return Fasle
        if s.lower() in ['a', 'e','i', 'o', 'u']:
            return True
        else:
            return False

print("For character j is isVowel return value = " + str(isVowel('j')))
print("For charater e is isVowel return value = " + str(isVowel('e')))
```

```
For character j is isVowel return value = False
For charater e is isVowel return value = True
```