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21BDS0340

Computer Science Lab

Problem Set 3

**Question 1**

**Code:**

import re

sen = input()

words = sen.split(' ')

start = input()

end = input()

for i in words:

    # checking if I starts with start variable

    if re.match('^' + start, i.lower()):

        print(i)

for i in words:

    # checking if I ends with end variable

    if re.match('.\*' + end + '$', i.lower()):

        print(i)

**Algorithm:**

Import Regex

Read Sentence

Initialise Words by splitting Sentence by space

Read Start

Read End

Loop through Words with I

If lowercase I starts with Start

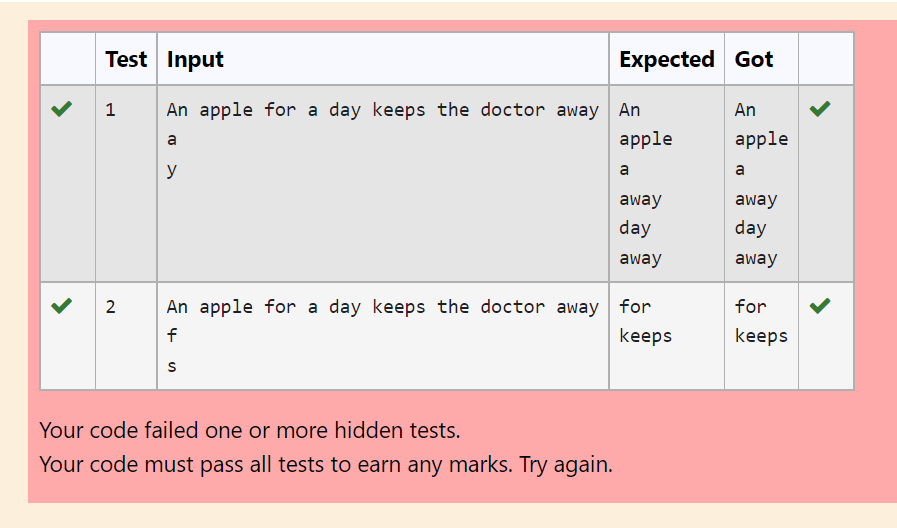
Display I

Loop through Words with I

If lowercase I ends with End

Display I

**Output:**

****

**Question 2**

**Code:**

import re

sen = input()

words = sen.split(' ')

start = input()

end = input()

for i in words:

    # checking if I starts with start variable and ends with end variable

    if re.match('^' + start, i.lower()) and re.match('.\*' + end + '$', i.lower()):

        print(i)

**Algorithm:**

Import Regex

Read Sentence

Initialise Words by splitting Sentence by space

Read Start

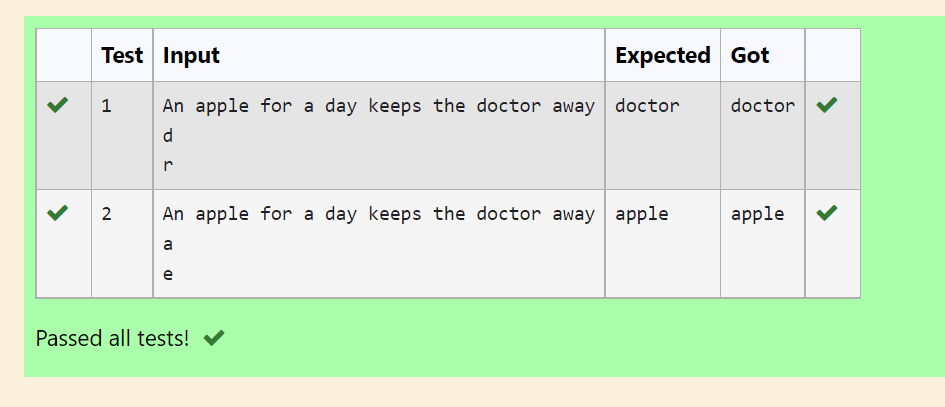
Read End

Loop through Words with I

If lowercase I starts with Start and ends with End

Display I

**Output:**

****

**Question 3**

**Code:**

def Check\_21BDS0340(Parameter):

    # getting length of Parameter

    string\_length = len(Parameter)

    # getting last character of Parameter

    end\_character = int(Parameter[-1])

    # return whether they are the same

    return string\_length == end\_character

string = input()

print(Check\_21BDS0340(string))

**Algorithm:**

Check\_21BDS0340(String Param):

Initialise String\_Length as length of Param

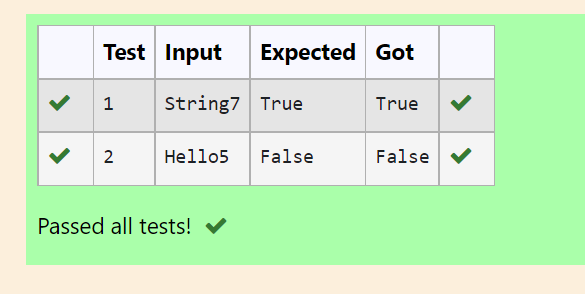
Initialise End\_Character as the last character of Param and convert it to integer

Return True if String\_Length equals End\_Character, else return False

Read String as input

Display Check\_21BDS0340(String)

**Output:**

****

**Question 4**

**Code:**

def Salary\_21BDS0340(List):

    # initialising min and max salaries and ids

    max\_salary = min\_salary = List[0]['salary']

    max\_id = min\_id = List[0]['id']

    # finding max salary

    for i in List:

        if i['salary'] > max\_salary:

            max\_salary = i['salary']

            max\_id = i['id']

    # finding min salary

    for i in List:

        if i['salary'] < min\_salary:

            min\_salary = i['salary']

            min\_id = i['id']

    print(max\_id)

    print(min\_id)

List = eval(input())

Salary\_21BDS0340(List)

**Algorithm:**

Salary\_21BDS0340(list List):

Initialise Max\_Salary and Min\_Salary as the first salary field in List

Initialise Max\_Id and Min\_Id as the first id field in List

Loop through List as I

If I’s Salary > Max\_salary

Max\_Salary is now I’s Salary

Max\_Id is now I’s Id

Loop through List as I

If I’s Salary < Min\_salary

Min\_Salary is now I’s Salary

Min\_Id is now I’s Id

Display Max\_Id

Display Min\_Id

Read List as evaluated input

Call Salary\_21BDS0340(List)

**Output:**

