* Input a text in the console.
* Check if the text contains only sorted digits (from lowest to highest values)
* If so, write SORTED, otherwise write NOT SORTED

1. What will be the **result** for these outputs?

|  |  |
| --- | --- |
| **Input** | **Output** |
| 489 | SORTED |
| 4762 | NOT SORTED |
| 12 | SORTED |
| 1268 | SORTED |
| 1896 | NOT SORTED |
| 1536 | NOT SORTED |
| 2789 | SORTED |

1. How many parts can you divide the problem into? Individual work.

Step1: create variable for user input number

Step2 : create isStored for store False

Step3: use for loop to repeat

Step4: check number user in put is order or not

Step5: if number oder print(NTORED)

Step6: if number not order print(NOT STORED)

1. Create the flowchart structure of your algorithm. Team (3 students) work.

START

Text=input()

isSorted = True

Done

Len(text)-1

Len(text[i])>len(text[i+1])

isSorted = False

isSorted==True

Print (“SORTED”)

Print (“ NOT SORTED”)

END

1. Implement your code. Team (3 students) work.

text=input()

isSorted = True

for i in range (len(text)-1):

if text[i] > text[i+1]:

isSored=False

if isSored == True:

print("SORTED")

else:

print("NOT SORTED")

1. Execute it in a table of execution. Team (3 students) work.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| step | text | isSorted | i | Len(text)-1 | Text[i]>text[i+1] | Print() |
| 1 | 489 |  |  |  |  |  |
| 2 |  | True |  |  |  |  |
| 3 |  |  | 0 |  |  |  |
| 4 |  |  |  | 2 |  |  |
| 5 |  |  |  |  | (4>8)? |  |
| 6 |  | True |  |  |  |  |
|  |  |  |  |  |  | Sorted |

* Input a text in the console.
* Control that the text is owning only "abc" pattern.
  + Print “OK” if so
  + Otherwise, print “WRONG”

1. What will be the **result** for these outputs?

|  |  |
| --- | --- |
| **Input** | **Output** |
| abcd | WRONG |
| abcabc | OK |
| abc | OK |
| aabc | WRONG |
| abbc | WRONG |
| abcabcab | WRONG |
| abcdefg | WRONG |

1. Create your flowchart structure with black boxes.

* Each student has to create his own.
* Share the result in group of 3.

START

Text=input()

Result =”wrong”

Count=0

Done

Len(text)

Count +=1

count==3 and text[i]=="c" and text[i-1]=="b" and text[i-2]=="a"

Count=0

Result =”wrong”

Result =”ok”

Print (result)

END

1. Implement it in Python. In group of 3.

text = input()

result = "WRONG"

count = 0

for i in range(len(text)):

count += 1

if count==3 and text[i]=="c" and text[i-1]=="b" and text[i-2]=="a":

count = 0

res = "OK"

else:

result = "WORNG"

print(res)

1. Fill up the execution table. In group of 3.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Step | text | result | count | i | Len(text) | Count==3 and text[i]==”c” and text[i-1] ==”b”and text[i-2] ==”a” | Print() |
| 1 | abc |  |  |  |  |  |  |
| 2 |  | Wrong |  |  |  |  |  |
| 3 |  |  | 1 |  |  |  |  |
| 4 |  |  |  | 0 |  |  |  |
| 5 |  |  |  |  | 3 |  |  |
| 6 |  |  | 2 |  |  |  |  |
| 7 |  |  |  | 1 |  |  |  |
| 8 |  |  | 3 |  |  |  |  |
| 9 |  |  |  | 2 |  |  |  |
| 10 |  |  |  |  |  | (Count==3)? and (text[2]==c)?and (text[1]==b)? and (text[0]== a)? |  |
| 11 |  |  | 0 |  |  |  |  |
| 12 |  | ok |  |  |  |  |  |
| 13 |  |  |  |  |  |  | ok |

1. Present your flowchart structure to the class. In group of 3.

* Input a text in the console.
* Check that the text:
  + Has only *y*, between square brackets (need open AND close brackets).
  + Otherwise has *x*
* If the text is correct
  + Print “OK”
  + Otherwise, print “WRONG”

1. What will be the **result** for these outputs? Individual work

|  |  |
| --- | --- |
| **Input** | **Output** |
| xxx[yyy]xxx | Ok |
| [yyy]xxx | OK |
| xxx[yyy | WRONG |
| xxxy | WRONG |
| [yy] | WRONG |
| xxx[yxyy]xxx | WRONG |
| xxxxx | OK |

1. Which main instruction can solve the problem? What will it be used for? Group of 3 students.

Step 1: create variable for user input()

Step2 : create variable and set to “”

Step 3 : create variable result for store result change

Step4 : use for loop for repeat

Step 5: use if for check condition if the text have x

Step6 : use elif for check condition if the text have y in [

Step7 : use elif for check condition if the text have y in ]

Step8: print()

1. Create a code to solve this problem. Group of 3 students.

text = input()

is\_wrong\_display =""

result =''

for i in range(len(text)):

if text[i] =='x':

result = 'OK'

elif i+1<len(text) and text[i] == '[' and text[i+1] == 'y':

result ='OK'

elif i+1<len(text) and text[i] == 'y' and (text[i+1] ==']' or text[i+1] =='y') and i !=0 and text[i-1] !='x':

result ='OK'

elif text[i] ==']' and text[i-1] =='y':

result ='OK'

else:

is\_wrong\_display = True

if is\_wrong\_display == True:

print("WRONG")

else:

print(result)

1. Present your solution to the class. Group of 3 students.