1. What is this code doing?

string = input()

res = False

for i in range(len(string)):

if string[i] == "7":

res = True

print(res)

1. Based on your analysis in question 1, complete the test cases.

|  |  |
| --- | --- |
| **Input** | **Output** |
| “23476” | True |
| “23498” | False |
| “77770” |  |
| “1234567” |  |
| “73475” |  |

1. Use the code from question 1 to create a flowchart to solve this problem.

* Check if a string contains only numbers getter than 6.

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

|  |  |
| --- | --- |
| **Input** | **Output** |
| 75465 | False |
| 789 | True |
| 1 | False |
| 75687 |  |
| 13457 |  |

1. Analyze **the symbols** you need to solve this problem.

|  |  |  |
| --- | --- | --- |
| Element | Do you need it? For what? | How are you going to fill in this block (give an example) |
| Action |  |  |
| Decision |  |  |
| Repeat |  |  |
| Input / Output |  |  |

1. Fill up this code.

string = input()

res = False

for i in **<TO COMPLETE>:**

if  **<TO COMPLETE>:**

res = True

print(res)

* Enter a number (number) in the console.
* Enter a string (mode) in the console: The mode can either "inside" or "outside".
* If mode is "inside”
  + it's true only if <number> is in the range [1, 10]
* If mode is "outside”
  + it's true only if <number> is less than 1 or greater than 10.

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

|  |  |
| --- | --- |
| **Input** | **Output** |
| > 5  > inside | True  We enter 5 and “inside” and 5 is in range of [1, 10]. |
| > 5  > outside | False  We enter 5 and “outside” and 5 is outside the range of [1,10] |
| > 7  > outside |  |
| > 3  > inside |  |
| > 42  > outside |  |
| > 21  > inside |  |

1. Analyze **the symbols** you need to solve this problem.

|  |  |  |
| --- | --- | --- |
| Element | Do you need it? | For what? |
| Action |  |  |
| Decision |  |  |
| Repeat |  |  |
| Input / Output |  |  |

1. What is your strategy to solve the problem?
2. Do it.

* 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 |  |
| 1896 |  |
| 6 |  |

1. Create an algorithm that solve this problem.