EXERCISE 1

Q1: What is this code doing?

```
string = input()
res = False
for i in range(len(string)):
    if string[i] == "7":
        res = True
print(res)
```

Q2: Based on your analysis in question 1, complete the test cases.

Input	Output
“23476”	True
“23498”	False
“77770”	
“1234567”	
“73475”	

Q3: Use the code from question 1 to create a flowchart to solve this problem.

EXERCISE 2

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

Q1: What will be the **result** for these outputs?

Input	Output
75465	False
789	True
1	False
75687	
13457	

Q2: 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 		

Q3: Fill up this code.

```
string = input()
res = False
for i in  <TO COMPLETE>:
   if  <TO COMPLETE>:
      res = True
print(res)
```

EXERCISE 3

- 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.

Q1: 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	

Q2: Analyze **the symbols** you need to solve this problem.

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

Q3: What is your strategy to solve the problem?

Q4: Do it.

EXERCISE 4

- 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

Q1: What will be the **result** for these outputs?

Input	Output
489	SORTED
4762	NOT SORTED
12	SORTED
1268	
1896	
6	

Q2: Create an algorithm that solve this problem.