Q)..Max Difference You Can Get From Changing an Integer

You are given an integer num. You will apply the following steps exactly two times:

- Pick a digit x (0 <= x <= 9).
- Pick another digit y (0 <= y <= 9). The digit y can be equal to x.
- Replace all the occurrences of x in the decimal representation of num by y.
- The new integer cannot have any leading zeros, also the new integer cannot be 0.

Let a and b be the results of applying the operations to num the first and second times, respectively.

Return the max difference between a and b

Program:

```
def maxDiff(num):
    num_str = str(num)
    max_diff = 0
    for x in range(10):
        for y in range(10):
            a_str = num_str.replace(str(x), str(y))
            if a_str != "0" and not
a_str.startswith("0"):
                a = int(a_str)
                max_diff = max(max_diff, abs(a - num))
    return max_diff
```

num = 555
print(maxDiff(num))
Output:

```
C:\Users\srika\Desktop\CSA0863\pythonProject\.venv\Scripts\python.exe C:\Users\srika\Desktop\CSA0863\pythonProject\problem.py
444

Process finished with exit code 0
```

Time complexity:O(1)