37. 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.

PROGRAM:

```
def maxDiff(num: int) -> int:
    num_str = str(num)
    max_diff = 0
    for i, digit in enumerate(num_str):
        if digit != '9':
            new_num_str = num_str.replace(digit, '9')
            max_diff = max(max_diff, int(new_num_str) - num)
        break
        if num_str[0] != '1':
            new_num_str = num_str.replace(num_str[0], '1')
            max_diff = max(max_diff, num - int(new_num_str))
    return max_diff
print(maxDiff(9))
```

OUTPUT:

```
PS C:\Users\chall\OneDrive\Desktop\DAA> & C:/Users/chall/AppData/Local/Programs/Python/Python312/python.exe
"
0
PS C:\Users\chall\OneDrive\Desktop\DAA>
```

TIME COMPLEXITY:

Time complexity for the above code is

F(n)=O(d)