

Tutorial 01 CS384 - Identify Meraki Number

Dr. Mayank Agarwal

Assignment Given: 16th Aug 2021,
Deadline 18th August 2021, 23:59
Submission: GitHub

Things to be kept in mind

- Dont take any inputs from user .
- Assume all +ve integers as input.
- While checking we will modify the input list, and check for correctness
- Program will be checked for plagiarism.

Write a Python program to check if a given input number is a Meraki number. A number is called Meraki number if all adjacent digits in it differ by 1. All **single digits** are **always** considered as Meraki number. Some examples of Meraki number are 0, 5, 10, 12, 78, 567, 101, 6787, 21012. E.g., 21012, $(2-1=1)$, $(1-0=1)$, $(0-1=1 \text{ (mod value)})$, $(1-2=1 \text{ (mod value)})$

Your program must contain a user/programmer-defined function `meraki_helper (n)` that prints “yes” or “no” if the input number is Meraki or not along the number (e.g, . Yes - 12 is a Meraki number, OR No, 72 is Not a meraki number). Finally your program should print the count of meraki numbers and non meraki numbers. E.g., the input list contains 12 meraki and 9 non meraki numbers.

Output filename: tut01.py

Push to your Github.

Your code should execute on [Online Python Compiler - online editor](#)

Assume only +ve integers. Python 3 is mandatory.

input = [12, 14, 56, 78, 98, 54, 678, 134, 789, 0, 7, 5, 123, 45, 76345, 987654321]

Sample input output

Input

input = [12, 14, 56, 1]

Output

Yes - 12 is a Meraki number

No - 14 is not a Meraki number

Yes - 56 is a Meraki number

Yes - 1 is a Meraki number

the input list contains 3 meraki and 1 non meraki numbers.