National University of Singapore
School of Computing
CS1010S: Programming Methodology
Semester II, 2024/2025

**Optional:
Tutorial 3 Recursion and Iteration**

Background

This document serves as an unofficial guide to reinforce students' understanding prepared by Zhu Ming. Participation in this practice is optional, and students are encouraged to work through the exercises at their own pace.

Recall

In Tutorial 3, we mainly focused on the following topics:

- Recursion
- Iteration

for more information, please refer to the tutorial slides.

Exercises: Recursion and Iteration. (Ideal time required 5-mins)

Implement a fucntion `count_even_digits` that computes count number of even numbers digits in a given number, `n`.

Sample exaction:

```
>>> count_even_digits(123456)
3
>>> count_even_digits(-123456)
3

def count_even_digits(n):
    # recursion version
```

```
def count_even_digits(n):
    # iteration version
```

If you solved the problem using str *conversion, try to solve it using arithmetic operations.*

Well, I am worried about you, I realized often time we don't have enough time for discussion after tutorial. You can text me on telegram for help, or you can arrange consultation with me (Please don't feel bad, it is my job to help you, I am paid for that).