Day 1

Today is the first day of 365 days challenge. I was confused about where should I start. After researching through the internet, I got some ideas. I wanted to start from the beginning. That's why I chose Python as I hope that it will be helpful for my FYP.

The book I am currently reading is "Think Python – How to think like a computer scientist". I found it beginner-friendly and helpful for me. I completed the first chapter:" The way of the program". Reading throughout the chapter, there were some of the basic terminologies that I got to know. They include:

- Program – A set of instructions that performs a particular task.
- Problem-solving – the process of formulating a problem, finding a solution, and expressing it.
- Natural language – languages that people speak that evolved naturally.
- Formal language – languages that have certain syntax and are designed for specific purposes like programming languages.
- High-level language – programming languages that are normally readable for human
- Low-level language – programming languages that are designed for computers and are normally hard for humans to read
- Bug – an error in a program
- Debugging – the process of finding and solving bugs

Alongside, there were some exercises provided in the book that required a python interpreter. It was not actual python problems; however, it included basic experimental questions:

Exercise 1.1

1. In a print statement, what happens if you leave out one of the parentheses or both?

```
>>> print "Hello, World!"
  File "<stdin>", line 1
    print "Hello, World!"
          ^
SyntaxError: Missing parentheses in call to 'print'. Did you mean print("Hello, World!")?
```

- We get a syntax error.

2. If you are trying to print a string, what happens if you leave out one of the quotation marks or both?

```
>>> print("Hello, World!)
  File "<stdin>", line 1
    print("Hello, World!)
                         ^
SyntaxError: EOL while scanning string literal
```

- We get a syntax error

3. You can use a minus sign to make a negative number like -2. What happens if you put a plus sign before a number? What about 2++2?

```
>>> 2++2
4
```

Here the first '+' represents the normal binary addition operation and the second '+' means integer (+2). So, mathematically 2+(+2) is equal to 4. This is the output.

4. In math notation, leading zeros are ok, as in 09. What happens if you try this in Python? What about 011?

```
>>> 011
  File "<stdin>", line 1
    011
     ^
SyntaxError: leading zeros in decimal integer literals are not permitted; use an 0o prefix for octal integers
```

- We get a syntax error.

5. What happens if you have two values with no operator between them?

```
>>> 2 4
  File "<stdin>", line 1
    2 4
      ^
SyntaxError: invalid syntax
```

- We get a syntax error.

Exercise 1.2

1. How many seconds are there in 42 minutes 42 seconds?

```
>>> 42*60 + 42
2562
```

   - There are 2562 seconds in 42 minutes 42 seconds.

2. How many miles are there in 10 kilometers? Hint: there are 1.61 kilometers in a mile.

```
>>> 10 / 1.61
6.211180124223602
```

   - There are 6.21 miles in 10 kilometers.

Okay, these are the new terms and exercises that I have learned and solved today. It was a fresh start and it felt good. Hope to be consistent. Well, see you tomorrow.

Lopsang Lama

"As long as I am breathing in my eyes, I am just beginning." – Criss Jami, Killosophy