

# [CS 11] Prac 1k – Book Worm

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[oj.dcs.upd.edu.ph/problem/cs11prac1k](https://oj.dcs.upd.edu.ph/problem/cs11prac1k)

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Points: 180 (partial)

Time limit: 4.0s

Memory limit: 1G

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Problem type

Allowed languages

NONE, py3

## Problem Statement

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On day  $dd$ , you have begun a new hobby: reading!

You have several books in your pipeline. Your plan is to read exactly one book per day, starting on day  $dd$ .

For each book, can you tell which day you'll read it?

## Task Details

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Your task is to implement **two functions**: called `enumerate_from` and `enumerate_from_0`.

The `enumerate_from` function takes in two arguments `books` and `d`:

- `books` is a `tuple` of `strs` denoting the sequence of books you want to read.
- `d` is an `int` whose meaning is described in the problem statement.

The function must return a `tuple` of pairs. The  $i$ th pair must consist of:

- The day you'll read the book `books[i]`, assuming you start reading at day  $dd$ .

- The name of the book `books[i]` itself.

The `enumerate_from_0` function solves a special case of `enumerate_from` where you start at day  $d=0$ . It takes in a single argument `books`, a `tuple` of `strs` denoting the sequence of books you want to read and must return a `tuple` of pairs analogous to the return value of `enumerate_from`.

## Restrictions

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For this problem:

- Assignment is allowed.
- Recursion is allowed.
- Up to 66 function definitions are allowed.
- Comprehensions are **disallowed**.
- `range` is **disallowed**.
- The `abs` symbol is now allowed.
- The source code limit is 10001000.

## Example Calls

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### Example 1 Function Call

Copy

```
enumerate_from_0(('SICP', 'CTMCP', 'CLRS'))
```

### Example 1 Return Value

Copy

```
(
    (0, 'SICP'),
    (1, 'CTMCP'),
    (2, 'CLRS'),
)
```

### Example 2 Function Call

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```
enumerate_from(('SICP', 'CTMCP', 'CLRS'), 5)
```

## Example 2 Return Value

Copy

```
(  
    (5, 'SICP'),  
    (6, 'CTMCP'),  
    (7, 'CLRS'),  
)
```

## Constraints

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- The functions `enumerate_from_0` and `enumerate_from` will be called at most 100 100 times overall.
- `books` will have between 11 and 2525 elements.
- Each element of `books` is a string with length at most 5050, and it consists of letters and digits only.
- $|d| \leq 1050 \mid d \mid \leq 10^{50}$ .

## Scoring

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- You get 7070 ❤️ points if you solve all test cases where:
  - Only `enumerate_from_0` is called.
- You get 7070 ❤️ points if you solve all test cases where:
  - Only `enumerate_from` is called.
- You get 4040 ❤️ points if you solve all test cases.

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## Clarifications

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No clarifications have been made at this time.