

Sprout Therapy Assignment

You are given a number of inputs and corresponding expressions for substitutions between inputs and outputs, and the expected output.

The algorithm should be implemented using any approaches/ techniques that you find appropriate.

Assignment can be implemented in any language of your choice, and you can use any framework / libraries that you wish. It's up to you to decide how to control quality of implementation and what design/ approach to pick/ invent.

Possible inputs

Following variables are acceptable as input:

A: bool
B: bool
C: bool
D: float
E: int
F: int

Expected outputs

The outputs are defined as:

H: one of these predefined values [M,P,T] (e.g. H could be equal to either of 3 values: M, P or T)

K: floating point number (e.g. float, decimal)

Substitution expressions

The assignment consists of base expressions set and two custom set of expressions that override / extend the base rules.

Base

```
A && B && !C => H = M
A && B && C   => H = P
!A && B && C => H = T
[other]      => [error]
```

```
H = M => K = D + (D * E / 10)
H = P => K = D + (D * (E - F) / 25.5)
H = T => K = D - (D * F / 30)
```

Custom 1

```
H = P => K = 2 * D + (D * E / 100)
```

Custom 2

```
A && B && !C => H = T
A && !B && C => H = M
H = M          => K = F + D + (D * E / 100)
```

Result

Assignment could be implemented in a way of backend application and be exposed in a simple REST API or as browser based application and run within the browser with or without communication to the backend. Shape of implementation is up to you.

Applying

The assignment should be sent either as a zip-folder or link to a Git repository.

Please provide an accompanying description of architecture, implementation details why you decided to solve an assignment using particular approach, framework, programming language, verification of code quality, etc. It's an open format so feel free to express your decisions the way you feel it makes more sense from you point of you.

Please provide either in shape of README.md file or in any other format.