Practical Implementing Assignment Task (C1)

Task

Stephen collected a lot of candies (*N*) at Halloween. He wrote a list about the known information about the candies like *name* and *count*.

Write a C++ application to answer the following questions (4, 4, 5 points). You should pay attention to the regular application of pattern of algorithm! (2-2 points) Use functions (4 points) and read data from console (4 points) with checking them (6 points)!

The questions:

a) Which candy is more than 40?
b) He promised to his sister that every *teasers* will be given to her. How many percent of candies will remain for him?

Specification

Input: N:**Integer**,
candies:Array[1..N:(name x count)], name:**String**, count: **Integer**
Output$_a$: name:**String**
Output$_b$: remainedPercent:**Decimal number**
Precondition: $\exists i \in [1..N]$: candies$_i$.count > 40
Postcondition$_a$: $\exists i \in [1..N]$: name=candies$_i$.name and 40 < candies$_i$.count
Postcondition$_b$: remainedPercent = $100 * \sum_{\substack{i=1 \\ candies_i.name \neq teasers}}^{N} candies_i.count \; / \; \sum_{i=1}^{N} candies_i.count$

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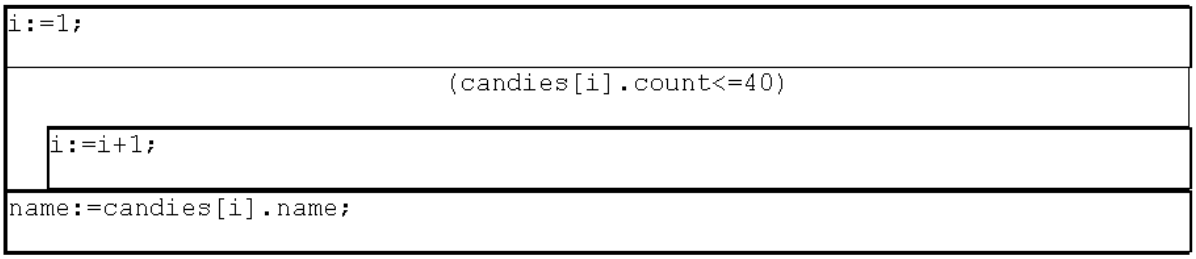
Algorithm

NSDa



NSDb