Tutorial N°3

Exercice 01

Given the stack of integers {7,5} , what does the stack look like after a call to "push" 8? Assume the left-most element is the top element of the stack.

Solution

$$\{8, 7, 5\}$$

Exercice 02

The stack of integers $\{2,9,5,8,1,3\}$ is "popped" twice. What is the value returned by the second "pop" operation? Assume the left-most element is the top element of the stack.

Solution

$$9$$

Exercice 03

The stack of integers $\{41,8\}$ undergoes the following operations, in the following order: "pop", "push 2", "push 15", "pop". What does the stack look like after all of these operations have been performed? Assume the left-most element is the top element of the stack.

Solution

$\{2, 8\}$

Exercice 04

Based on the programs written in C language given in the course, we ask to transform in a flowchart the following functions:

1. Function to create an empty stack.
2. Function to push an element to the stack.
3. Function to pop an element from the stack.

Solution

Flowchart