CAP - Exercise: Fun with abstract machines (ch 11)

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EXERCISE ▶ **Let in**

The compilation of `let y = 40 in y+2` gives the following (abstract) code : **Cst 40;Let "y";Cst 2; Access "y"; Add; EndLet**. Using the execution rules of the course, execute it step by step :

Code	Env.	Stack
Cst 40;Let "y";Cst 2; Access "y"; Add; EndLet	$\emptyset$	$\emptyset$
Let "y";...EndLet		
Cst 2;...EndLet		
Access "y";Add;EndLet		
Add;EndLet		
EndLet		
(end)		

EXERCISE ▶ **Functions**

The compilation of `(fun x-> x+1) 42` gives the following abstract code to be executed.

```
Cst 41;Closure("x",Acces x;Cst 1; Add; Ret);App
```

Code	Env.	Stack
Cst 41;Closure("x",Acces x;Cst 1; Add; Ret);App)	$\emptyset$	$\emptyset$
Closure("x",Acces x;Cst 1; Add; Ret);App	$\emptyset$	Vint(41)