

```

class stackAlg
types
  public Stack = A*;
  public A = token
functions
public
  empty : Stack →  $\mathbb{B}$ 
  empty (s)  $\triangleq$ 
    s = [];
public
  push : A × Stack → Stack
  push (a, s)  $\triangleq$ 
    [a]  $\curvearrowright$  s;
public
  pop : Stack → Stack
  pop (s)  $\triangleq$ 
    tl s
  pre  $\neg$  empty (s) ;
public
  top : Stack → A
  top (s)  $\triangleq$ 
    hd s
  pre  $\neg$  empty (s) ;
public
  init : () → Stack
  init ()  $\triangleq$ 
    []
end stackAlg

```