

// RICERCA DEL PREDECESSORE

TREE predecessorNode(TREE t)

if $t == \text{nil}$ then

 return t

(1) if $t.\text{left} \neq \text{nil}$ then

 return $\text{max}(t.\text{left})$

(2) else

 TREE $p \leftarrow t.\text{parent}$

 while $p \neq \text{nil}$ and $t == p.\text{left}$ do

$t \leftarrow p$ // padre

$p \leftarrow p.\text{parent}$ // nonno

return p

// RICERCA DEL SUCCESSORE

TREE successorNode(TREE t)

if $t == \text{nil}$ then

 return t

(3) if $t.\text{right} \neq \text{nil}$ then

 return $\text{min}(t.\text{right})$

else

 TREE $p \leftarrow t.\text{parent}$

 while $p \neq \text{nil}$ and $t == p.\text{right}$ do

$t \leftarrow p$

$p \leftarrow p.\text{parent}$

return p