

input: Sorted Queue  $q$ , void  $ele$ ,  $p\_queue\_ele\_cmp$  comp

output: OK / ERROR

if  $squeue\_is\_Empty(q)$  then

$queue\_push(q, ele)$

    return OK

end

while  $squeue\_getFront(q) < ele$  do

$aux = squeue\_pop(q)$

$queue\_push(q, aux)$

end loop

$queue\_push(q, ele)$

while  $squeue\_getFront(q) \geq ele$  do

$aux = squeue\_pop(q)$

$queue\_push(q, aux)$

end loop

return OK