
Algorithm 3.1.57 Time-block optimization scheduler, by earliest time-block end times. Takes as input a list of 2-tuples in the form of $\langle \text{start time}, \text{end time} \rangle$.

```

1: procedure GREEDY_SCHEDULER( $a_1, a_2, \dots, a_n$ : list of 2-tuples)
   $\triangleright$  Sort the list in nondecreasing order, by the 2nd position tuple elements.
2:   for  $j = 2$  to  $n$  do
3:      $i \leftarrow 1$ 
4:     while  $a_{j_2} > a_{i_2}$  do
5:        $i += 1$ 
6:     end while
7:      $element \leftarrow a_j$ 
8:     for  $k = 0$  to  $(j - i - 1)$  do
9:        $a_{(j-k)} \leftarrow a_{(j-k-1)}$ 
10:    end for
11:     $a_i \leftarrow element$ 
12:  end for  $\triangleright$  List is sorted. End insertion sort.
13:   $b \leftarrow [a_1]$   $\triangleright a_1$  has the least start time of all elements in  $a$ 
14:   $bindex \leftarrow 1$ 
15:  for  $i = 2$  to  $n$  do  $\triangleright$  Find the optimal schedule.
16:    if  $a_{i_1} \geq b_{bindex_2}$  then
17:       $bindex += 1$ 
18:       $b_{bindex} \leftarrow a_i$ 
19:    end if
20:  end for
21:  return  $b_1, b_2, \dots, b_m$ 
22: end procedure

```
