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**Algorithm 8:** InsertionSort

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**Input:** array  $A = (a_1, \dots, a_n)$

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1 for  $i \leftarrow 2, \dots, n$  do  
2    $b \leftarrow a_i$   
3    $k \leftarrow i$   
4   while  $k \geq 2$  and  $a_{k-1} > b$  do  
5      $a_k \leftarrow a_{k-1}$   
6      $k \leftarrow k - 1$   
7    $a_k \leftarrow b$ 
```

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