# Insertion Sort

Trace the following code

|  |  |
| --- | --- |
| **1**  **2**  **3**  **4**  **5**  **6**  **7**  **8**  **9**  **10**  **11** | def insertion\_sort(mylist):  for i in range(1, len(mylist)):  item = mylist[i]  j = i-1  while j >=0 and item < mylist[j]:  mylist[j+1] = mylist[j]  j=j-1  mylist[j+1] = item  mylist =[9,7,2,1]  insertion\_sort(mylist)  print(mylist) |

|  |  |  |  |
| --- | --- | --- | --- |
| **i** | **item** | **j** | **mylist** |
| 1 | 7 | 0 | [9,7,2,1] |
|  |  | -1 | [9,9,2,1] |
| 2 | 2 | 1 | [7,9,2,1] |
|  |  | 0 | [7,9,9,1] |
| 3 | 1 | -1 | [2,7,9,1] |
|  |  | 2 | [2,7,9,9] |
|  |  | 1 | [2,7,7,9] |
|  |  | 0 | [2,2,7,9] |
|  |  | -1 | [1,2,7,9] |