This is how the sorting algorithm flows.
$\langle 3, 41, 52, 26, 38, 57, 9, 49\rangle$
$\langle 3, 41, 52, 26\rangle\langle 38, 57, 9, 49\rangle$
$\langle 3, 41\rangle\langle 52, 26\rangle\langle 38, 57, 9, 49\rangle$
$\langle 3\rangle\langle 41\rangle\langle 52, 26\rangle\langle 38, 57, 9, 49\rangle$
(Sub-arrays $\langle 3\rangle\langle 41\rangle$ then get merged.)
$\langle 3, 41\rangle\rangle 52, 26\rangle\langle 38, 57, 9, 49\rangle$
$\langle 3, 41\rangle\langle 52\rangle\langle 26\rangle\langle 38, 57, 9, 49\rangle$
(Sub-arrays $\langle 52\rangle\langle 26\rangle$ then get merged.)
$\langle 3, 41\rangle\langle 26, 52\rangle\langle 38, 57, 9, 49\rangle$
(Sub-arrays $\langle 3, 41\rangle\langle 26, 52\rangle$ then get merged.)
$\langle 3, 26, 41, 52\rangle\langle 38, 57, 9, 49\rangle$
In a similar fashion, the the right sub-array is sorted.
$\langle 3, 26, 41, 52\rangle\langle 9, 38, 49, 57\rangle$
Finally, these two sub-arrays are merged.
$\langle 3, 9, 26, 38, 41, 49, 52, 57\rangle$