Booble Sort

[3, 7, 1, 4, 9, 2]

3 > 7 = F
7 > 1 = V

[3, 1, 7, 4, 9, 2]

7 > 4 = V

[3, 1, 4, 7, 9, 2]

7 > 9 = F
9 > 2 = V

[3, 1, 4, 7, 2, 9]

3 > 1 V

[1, 3, 4, 7, 2, 9]

3 > 4 = F
4 > 7 = F
7 > 2 = V

[1, 3, 4, 2, 7, 9]

7 > 9 = f
1 > 3 = F
3 > 4 = F
4 > 2 = T

[1, 3, 2, 4, 7, 9]

4 > 7 = F
7 > 9 = F

[1, 3, 2, 4, 7, 9]

1 > 3 = f
3 > 2 = V

[1, 2, 3, 4, 7, 9] ✓

3 > 4 = f
4 > 7 = f
7 > 9 = f

data
fecha

SELECTION SORT

[3, 7, 1, 4, 9, 2]

MENOR = 3

7 < 3 = f
1 < 3 = ✓ → MENOR = 1
4 < 1 = f
9 < 1 = f
2 < 1 = f

[1, 7, 3, 4, 9, 2]

MENOR = 7

3 < 7 = ✓ → MENOR = 3
4 < 3 = f
9 < 3 = f
2 < 3 = ✓ → MENOR = 2

[1, 2, 3, 4, 9, 7]

MENOR = 3

4 < 3 = f
9 < 3 = f
7 < 3 = f

MENOR = 4

9 < 4 = f
7 < 4 = f

MENOR = 9

9 < 9 = ✓ MENOR = 7

[1, 2, 3, 4, 7, 9] ✓

INSERTION SORT

[3, 7, 1, 4, 9, 2]

- i = 1 j = 0 CHAVE = V(i) = 7

WHILE (j >= 0 && CHAVE < V[j])

j = 0 ✓

CHAVE < 3 = FALSO

V[1] = 7

[3, 7, 1, 4, 9, 2]

i = 2 j = 1 CHAVE = V[i] = 1

(WHILE)

j >= 0 ✓

CHAVE < 7 ✓

V[2] = V[1] = 7

j = 0

j >= 0 ✓

CHAVE < 3 ✓

V[1] = V[0] = 3

j = -1

V[0] = CHAVE

[1, 3, 7, 4, 9, 2]

[1, 3, 7, 4, 9, 2]

$i = 3$ $j = 2$ CHAVE = V[i] = 4

WHILE ($j >= 0$ ∧ CHAVE < V[j])

$j = 2$ ✓
CHAVE < 7 V

V[3] = V[2] = 7
$j = 1$

CHAVE < 3 F

V[2] = CHAVE = 4

[1, 3, 4, 7, 9, 2]

$i = 4$ $j = 3$ CHAVE = V[i] = 9

WHILE ($j >= 0$ ∧ CHAVE < V[j]

CHAVE < 7 F
$j = 2$

CHAVE < 4 F
$j = 1$
CHAVE < 3 F
$j = 0$
CHAVE < 1 F

V[4] = CHAVE = 9

[1, 3, 4, 7, 9, 2]

$i = 5 \quad j = 4 \quad CHAVE = V[i] = 2$

WHILE ($j >= 0 \wedge CHAVE < V[j]$)

$CHAVE < 9$ ✓

$V[5] = V[4] = 9$

$j = 3$

$CHAVE < 7$ ✓

$V[4] = V[3] = 7$

$j = 2$

$CHAVE < 4$ ✓

$V[3] = V[2] = 4$

$j = 1$

$CHAVE < 3$ ✓

$V[2] = V[1] = 3$

$j = 0$

$CHAVE < 1$ f

$V[1] = CHAVE = 2$

[1, 2, 3, 4, 7, 9]