SORT (Arrange/Order) ELEMENTS OF AN ARRAY IN ASCENDING ORDER Using **Bubble Sort Algorithm**

i < noe

i < 5

for (i=1;i <= 4;i++)

{

// compare pairs of elements

j < noe-1 (For Given “noe”, noe-1 is a constant). So this term must be replaced. j < ?, so that in every next iteration of outer loop, 1 pair less will be compared in inner loop

j < 4

for (j=0; j <= 3 ;j++)

{

if (nos[j] > nos[j+1])

// swap the elements (abstract)

}

}

Dry Run

i=1, j=0,1,2,3 No of pairs compared = 4

i=2, j=0,1,2,3 No of pairs compared = 4 (Wrong) 3

i=3, j=0,1,2,3 No of pairs compared = 4 (Wrong) 2

i=4, j=0,1,2,3 No of pairs compared = 4 (Wrong) 1

Total pairs compared = 16 (Wrong) 10

So in inner loop, we have to see that with every next iteration of outer loop i.e. of var i, every time 1 less pair should be compared.

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| --- |
| 0 |
| 1 |
| 2 |
| 3 |
| 4 |

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| 30 |
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| 4 |

**IV**

**III**

**II**

**I**

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| 20 |
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| 30 |
| 40 |
| 50 |

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| --- |
| 0 |
| 1 |
| 2 |
| 3 |
| 4 |

~~j < noe – 1~~ j < noe - i

i=1, j=0,1,2,3

i=2, j=0,1,2

i=3, j=0,1

i=4, j=0