

Sorting

Question: Write an algorithm to sort the elements of an array in ascending order.

Solution:

```
Step 1 - Start
Step 2 - set  $i=0$ ,  $j=10$ ,  $k=0$ 
Step 3 - Print "Enter elements of array"
Step 4 - input while ( $i < 10$ ) do
Step 5 -      input  $a[i]$ 
Step 6 -       $i = i + 1$ 
Step 7 - End while
Step 8 - set  $i=0$ 
Step 9 - while ( $i < 10$ ) do
Step 10 -       $k = i + 1$ 
Step 11 -      while ( $k < 10$ ) do
Step 12 -          if ( $a[i] > a[k]$ )
Step 13 -              temp =  $a[i]$ 
Step 14 -               $a[i] = a[k]$ 
Step 15 -               $a[k] = temp$ 
Step 16 -          End if
Step 17 -           $k = k + 1$ 
Step 18 -      End while
Step 19 -       $i = i + 1$ 
Step 20 - End while
Step 21 -  $i = 0$ 
Step 22 - while ( $i < 10$ ) Print "Sorted value"
Step 23 - while ( $i < 10$ ) do
Step 24 -     Print  $a[i]$ 
Step 25 -      $i = i + 1$ 
Step 26 - End while
Step 27 - End
```

Two Dimensional Array

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Date :

Question. Write an algorithm to create a two dimensional array of 20 element and display the value of each element of array.

Solution:

```
Step 1 - start
Step 2 - set  $a[4][5]$ ,  $i=0$ ,  $j=0$ 
Step 3 - Print "Enter element of array"
Step 4 - while ( $i < 4$ ) do
Step 5 -  $j=0$ 
Step 6 - while ( $j < 5$ ) do
Step 7 - input  $a[i][j]$ 
Step 8 -  $j = j + 1$ 
Step 9 - Endwhile
Step 10 -  $i = i + 1$ 
Step 11 - Endwhile
Step 12 - set  $i=0$ ,  $j=0$ 
Step 13 - Print "the element of array"
Step 14 - while ( $i < 4$ ) do
Step 15 -  $j=0$ 
Step 16 - while ( $j < 5$ ) do
Step 17 - print  $a[i][j]$ 
Step 18 -  $j = j + 1$ 
Step 19 - Endwhile
Step 20 -  $i = i + 1$ 
Step 21 - Endwhile
Step 22 - End.
```