Frist array A : 40 70 20 60 90 10 50 30

**STEP 1**

Set start location i = 0

Find minium number from 0 to 7.

Set minium number is min= A[0] = 40

Start with j=i +1 =1

1. Min = 40 < A[1] = 70

increase j++; j= 2

1. Min = 40 > A[2] = 20

set new minium number min = A[2] = 20

increase j++; j= 3

1. Min = 40 < A[3] = 60

increase j++; j= 4

1. Min = 40 < A[4] = 90

increase j++; j= 5

1. Min = 40 > A[5] = 10

set new minium number min = A[5] = 10

increase j++; j= 6

1. Min = 40 < A[6] = 50

increase j++; j= 7

1. Min = 40 < A[7] = 30

increase j++; j= 8

swap minium number with A[0]

The new array : 10 70 20 60 90 40 50 30

**STEP 2**

Set start location i = 1

Find minium number from 1 to 7.

Set minium number is min= A[1] = 70

Start with j=i +1 =2

1. Min = 70 > A[2] = 20

set new minium number min = A[2] = 20

increase j++; j= 3

1. Min = 70 < A[3] = 60

increase j++; j= 4

1. Min = 70 < A[4] = 90

increase j++; j= 5

1. Min = 70 < A[5] = 40

increase j++; j= 6

1. Min = 70 < A[6] = 50

increase j++; j= 7

1. Min = 70 < A[7] = 30

increase j++; j= 8

swap minium number with A[1]

The new array : 10 20 70 60 90 40 50 30

**STEP 3**

Set start location i = 2

Find minium number from 2 to 7.

Set minium number is min= A[2] = 70

Start with j=i +1 =3

1. Min = 70 > A[3] = 60

set new minium number min = A[3] = 60

increase j++; j= 4

1. Min = 70 < A[4] = 90

increase j++; j= 5

1. Min = 70 > A[5] = 40

set new minium number min = A[5] = 40

increase j++; j= 6

1. Min = 70 < A[6] = 50

increase j++; j= 7

1. Min = 70 > A[7] = 30

set new minium number min = A[7] = 30

increase j++; j= 8

swap minium number with A[2]

The new array : 10 20 30 60 90 40 50 70

**STEP 4**

Set start location i = 3

Find minium number from 3 to 7.

Set minium number is min= A[3] = 60

Start with j=i +1 =4

1. Min = 60 < A[4] = 90

increase j++; j= 5

1. Min = 60 > A[5] = 40

set new minium number min = A[5] = 40

increase j++; j= 6

1. Min = 60 < A[6] = 50

increase j++; j= 7

1. Min = 60 < A[7] = 70

increase j++; j= 8

swap minium number with A[3]

The new array : 10 20 30 40 90 60 50 70

**STEP 5**

Set start location i = 4

Find minium number from 4 to 7.

Set minium number is min= A[4] = 90

Start with j=i +1 =5

1. Min = 90 > A[5] = 60

set new minium number min = A[5] = 60

increase j++; j= 6

1. Min = 90 > A[6] = 50

set new minium number min = A[6] = 50

increase j++; j= 7

1. Min = 90 < A[7] = 70

increase j++; j= 8

swap minium number with A[4]

The new array : 10 20 30 40 50 60 90 70

**STEP 6**

Set start location i = 5

Find minium number from 5 to 7.

Set minium number is min= A[5] = 60

Start with j=i +1 =6

1. Min = 60 < A[6] = 90

increase j++; j= 7

1. Min = 60 < A[7] = 70

increase j++; j= 8

swap minium number with A[5]

The new array : 10 20 30 40 50 60 90 70

**STEP 7**

Set start location i = 6

Find minium number from 6 to 7.

Set minium number is min= A[6] = 90

Start with j=i +1 =7

1. Min = 90 > A[7] = 70

set new minium number min = A[7] = 70

increase j++; j= 8

swap minium number with A[6]

The new array : 10 20 30 40 50 60 70 90

**Final sorting result** :10 20 30 40 50 60 70 90

Thuật toán chạy lòng 2 dòng for

for (int i=0;i<n-1;i++)

for (int j=i+1;j<n;j++)

* Độ phức tạp O(n^2).