//.......Selection sort using function template.....

**#Vinit**

#include <iostream>

using namespace std;

template <class T1>

T1 selectionsort(T1 p[],int n)

{

T1 temp;

int min;

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

{

    min=i;

    for(int j=i+1;j<n;j++)

    {

        if(p[min] > p[j])

        {

        min=j;

        }

            cout<<"\nDISPLAY....after each pass "<<i<<"("<<j<<")\n";

            for(int x=0;x<10;x++)

            cout<<p[x]<<"   ";

            cout<<endl;

        }

temp = p[min];

p[min] = p[i];

p[i] = temp;

}

}

int main()

{

int a[10]={37,84,62,91,11,65,57,28,19,49};

float b[10]={1.2,5.6,2.1,12.3,4.0,1.5,9.1,6.5,8.0,15.7};

cout<<" \n\nSorting int array ...";

selectionsort(a,10);

for(int i=0;i<10;i++)

    cout<<a[i]<<"   ";

cout<<endl;

cout<<" \n\nSorting float array ...";

selectionsort(b,10);

for(int i=0;i<10;i++)

    cout<<b[i]<<"   ";

cout<<endl;

return 0;

}

**Output:**

Sorting int array ...

DISPLAY....after each pass 0(1)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 0(2)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 0(3)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 0(4)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 0(5)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 0(6)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 0(7)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 0(8)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 0(9)

37 84 62 91 11 65 57 28 19 49

DISPLAY....after each pass 1(2)

11 84 62 91 37 65 57 28 19 49

DISPLAY....after each pass 1(3)

11 84 62 91 37 65 57 28 19 49

DISPLAY....after each pass 1(4)

11 84 62 91 37 65 57 28 19 49

DISPLAY....after each pass 1(5)

11 84 62 91 37 65 57 28 19 49

DISPLAY....after each pass 1(6)

11 84 62 91 37 65 57 28 19 49

DISPLAY....after each pass 1(7)

11 84 62 91 37 65 57 28 19 49

DISPLAY....after each pass 1(8)

11 84 62 91 37 65 57 28 19 49

DISPLAY....after each pass 1(9)

11 84 62 91 37 65 57 28 19 49

DISPLAY....after each pass 2(3)

11 19 62 91 37 65 57 28 84 49

DISPLAY....after each pass 2(4)

11 19 62 91 37 65 57 28 84 49

DISPLAY....after each pass 2(5)

11 19 62 91 37 65 57 28 84 49

DISPLAY....after each pass 2(6)

11 19 62 91 37 65 57 28 84 49

DISPLAY....after each pass 2(7)

11 19 62 91 37 65 57 28 84 49

DISPLAY....after each pass 2(8)

11 19 62 91 37 65 57 28 84 49

DISPLAY....after each pass 2(9)

11 19 62 91 37 65 57 28 84 49

DISPLAY....after each pass 3(4)

11 19 28 91 37 65 57 62 84 49

DISPLAY....after each pass 3(5)

11 19 28 91 37 65 57 62 84 49

DISPLAY....after each pass 3(6)

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DISPLAY....after each pass 4(9)

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DISPLAY....after each pass 5(6)

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DISPLAY....after each pass 5(7)

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DISPLAY....after each pass 5(8)

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DISPLAY....after each pass 5(9)

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DISPLAY....after each pass 6(7)

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DISPLAY....after each pass 6(8)

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DISPLAY....after each pass 6(9)

11 19 28 37 49 57 65 62 84 91

DISPLAY....after each pass 7(8)

11 19 28 37 49 57 62 65 84 91

DISPLAY....after each pass 7(9)

11 19 28 37 49 57 62 65 84 91

DISPLAY....after each pass 8(9)

11 19 28 37 49 57 62 65 84 91

11 19 28 37 49 57 62 65 84 91

Sorting float array ...

DISPLAY....after each pass 0(1)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 0(2)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 0(3)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 0(4)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 0(5)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 0(6)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 0(7)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 0(8)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 0(9)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 1(2)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 1(3)

1.2 5.6 2.1 12.3 4 1.5 9.1 6.5 8 15.7

DISPLAY....after each pass 1(4)

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DISPLAY....after each pass 1(5)

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DISPLAY....after each pass 1(6)

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DISPLAY....after each pass 1(7)

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DISPLAY....after each pass 1(8)

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DISPLAY....after each pass 1(9)

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DISPLAY....after each pass 2(3)

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DISPLAY....after each pass 2(7)

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DISPLAY....after each pass 2(8)

1.2 1.5 2.1 12.3 4 5.6 9.1 6.5 8 15.7

DISPLAY....after each pass 2(9)

1.2 1.5 2.1 12.3 4 5.6 9.1 6.5 8 15.7

DISPLAY....after each pass 3(4)

1.2 1.5 2.1 12.3 4 5.6 9.1 6.5 8 15.7

DISPLAY....after each pass 3(5)

1.2 1.5 2.1 12.3 4 5.6 9.1 6.5 8 15.7

DISPLAY....after each pass 3(6)

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DISPLAY....after each pass 3(7)

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DISPLAY....after each pass 3(8)

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DISPLAY....after each pass 4(8)

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DISPLAY....after each pass 4(9)

1.2 1.5 2.1 4 12.3 5.6 9.1 6.5 8 15.7

DISPLAY....after each pass 5(6)

1.2 1.5 2.1 4 5.6 12.3 9.1 6.5 8 15.7

DISPLAY....after each pass 5(7)

1.2 1.5 2.1 4 5.6 12.3 9.1 6.5 8 15.7

DISPLAY....after each pass 5(8)

1.2 1.5 2.1 4 5.6 12.3 9.1 6.5 8 15.7

DISPLAY....after each pass 5(9)

1.2 1.5 2.1 4 5.6 12.3 9.1 6.5 8 15.7

DISPLAY....after each pass 6(7)

1.2 1.5 2.1 4 5.6 6.5 9.1 12.3 8 15.7

DISPLAY....after each pass 6(8)

1.2 1.5 2.1 4 5.6 6.5 9.1 12.3 8 15.7

DISPLAY....after each pass 6(9)

1.2 1.5 2.1 4 5.6 6.5 9.1 12.3 8 15.7

DISPLAY....after each pass 7(8)

1.2 1.5 2.1 4 5.6 6.5 8 12.3 9.1 15.7

DISPLAY....after each pass 7(9)

1.2 1.5 2.1 4 5.6 6.5 8 12.3 9.1 15.7

DISPLAY....after each pass 8(9)

1.2 1.5 2.1 4 5.6 6.5 8 9.1 12.3 15.7

1.2 1.5 2.1 4 5.6 6.5 8 9.1 12.3 15.7