RADIX SORT :

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// C++ implementation of Radix Sort
#include<iostream>
using namespace std;

// A utility function to get maximum value in arr[]
int getMax(int arr[], int size)
{
    int max = arr[0];
    for (int i = 1; i < size; i++)
        if (arr[i] > max)
            max = arr[i];
    return max;
}

void CountingSort(int arr[], int size, int div)
{
    int output[size];
    int count[10] = {0};

    for (int i = 0; i < size; i++)
        count[ (arr[i]/div)%10 ]++;

    for (int i = 1; i < 10; i++)
        count[i] += count[i - 1];

    for (int i = size - 1; i >= 0; i--)
    {
        output[count[ (arr[i]/div)%10 ] - 1] = arr[i];
        count[ (arr[i]/div)%10 ]--;
    }

    for (int i = 0; i < size; i++)
        arr[i] = output[i];
}


void RadixSort(int arr[], int size)
{
    int m = getMax(arr, size);
    for (int div = 1; m/div > 0; div *= 10)
        CountingSort(arr, size, div);
}


int main()
{
        int size;
        cout<<"Enter the size of the array: "<<endl;
        cin>>size;
        int arr[size];
        cout<<"Enter "<<size<<" integers in any order"<<endl;
```

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        for(int i=0;i<size;i++)
        {
                cin>>arr[i];
        }
   cout<<endl<<"Before Sorting: "<<endl;
   for(int i=0;i<size;i++)
        {
                cout<<arr[i]<<" ";
        }

        RadixSort(arr, size);

        cout<<endl<<"After Sorting: "<<endl;
   for(int i=0;i<size;i++)
        {
                cout<<arr[i]<<" ";
        }

    return 0;
}
```