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Chương trình Cài đặt Radix Sort với CTDL là mảng 01 chiều, dữ liệu là các số nguyên dương.

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```
#include<stdio.h>
```

```
#include<stdlib.h>
```

```
#include<conio.h>
```

```
void printData(int *a,int n){
```

```
    printf("\n");
```

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

```
        printf("%d\t",a[i]);
```

```
    }
```

```
int getMax(int *a,int n){
```

```
    int max=a[0];
```

```
    for(int i=1;i<n;i++)if(max<a[i])max=a[i];
```

```
    return max;
```

```
}
```

```
int countDigit(int n){
```

```
    int count=0;
```

```
    while(n){
```

```
        count++;
```

```
        n/=10;
```

```
    }
```

```
    return count;
```

```
}
```

```
int getDigit(int n,int t){
```

```
    int tt=1;
```

```
    for(int i=0;i<t;i++)tt*=10;
```

```
    return ((n/tt)%10);
```

```
}
```

```
void send2Box(int *a,int n,int *b[10],int num[10],int t){
```

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

```
        int tt=getDigit(a[i],t);
```

```
        b[tt][num[tt]++]=a[i];
```

```
    }
```

```
}
```

```
void getValue(int *a,int *b[10],int nn[10]){
```

```
    int j=0;
```

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

```
        if(nn[i]!=0){
```

```
            for(int k=0;k<nn[i];k++)a[j++]=b[i][k];
```

```
            nn[i]=0;
```

```
    }  
  }  
  
}  
void radixSort(int *a,int n){  
    int *Box[10];  
    int number[10];  
    for(int i=0;i<10;i++){  
        Box[i]=new int [n];  
        if(Box[i]==NULL){  
            printf("Not enough");  
            exit(0);  
        }  
        number[i]=0;  
    }  
    int nn=countDigit(getMax(a,n));  
    for(i=0;i<nn;i++){  
        send2Box(a,n,Box,number,i);  
        getValue(a,Box,number);  
    }  
  
}  
void main()  
{  
    clrscr();  
    int a[]={123,421,125,743,231,11,23,543,7};  
    int n=9;  
    radixSort(a,n);  
    printData(a,n);  
    getch();  
}
```