

selection.c • toh.c gcd_recursive.c

selection.c

```
1  #include<stdio.h>
2  #include <stdlib.h>
3  #include <time.h>
4  clock_t start, end;
5  double cpu_time;
6  int main()
7  {
8      int n,i,j,pos,temp,small,arr[10000],c,d;
9      srand(time(0));
10     printf("Enter the number of elements in array \n");
11     scanf("%d", &n);
12     printf("Elements of the array are:\n");
13     for (i= 0; i<n; i++)
14     {
15         arr[i]=rand()%100;
16         printf("%d ",arr[i]);
17     }
18     start = clock();
19     for(i=0;i<=n-2;i++)
20     {
21         small=arr[i];
22         pos=i;
23         for(j=i+1;j<=n-1;j++)
24         {
25             if(arr[j]<small)
26             {
27                 small=arr[j];
28                 pos=j;
29             }s
30         }
31         temp=arr[i];
32         arr[i]=arr[pos];
33         arr[pos]=temp;
34     }
35     end = clock();
36     cpu_time = (double)(end - start) / CLOCKS_PER_SEC;
37     printf("\nSorted array is:\n");
38     for(i=0;i<=n-1;i++)
```

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```
21     small=arr[i];
22     pos=i;
23     for(j=i+1;j<=n-1;j++)
24     {
25         if(arr[j]<small)
26         {
27             small=arr[j];
28             pos=j;
29         }
30     }
31     temp=arr[i];
32     arr[i]=arr[pos];
33     arr[pos]=temp;
34 }
35 end = clock();
36 cpu_time = (double)(end - start) / CLOCKS_PER_SEC;
37 printf("\nSorted array is:\n");
38 for(i=0;i<n;i++)
39 {
40     printf("%d ",arr[i]);
41 }
42 printf("\nExecution time for selection sort = %f ms\n", cpu_time*1000);
43 }
```


