

Selection Sort in C

```
#include<stdio.h>
#include <time.h>
void selection_sort(int, int[]);
void main()
{
    int i,n,a[10];
    printf("Enter size:\n");
    scanf("%d",&n);
    printf("Enter array elements:\n");
    for(i=0;i<n;i++)
        scanf("%d",&a[i]);
    selection_sort(n,a);
}
void selection_sort(int n, int a[])
{
    clock_t start_t, end_t, total_t;
    start_t = clock();
    printf("Starting of the function, start_t = %ld\n", start_t);
    int i, j, min;
    for (i = 0; i < n-1; i++)
    {
        min = i;
        for (j = i+1; j < n; j++)
            if (a[j] < a[min])
                min = j;
        if(min != i)
        {
            int t=a[min];
            a[min]=a[i];
            a[i]=t;
        }
    }
}
```

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    }
    printf("\n\n ascending order:");
    for(i=0;i<n;i++)
        printf("%d\t",a[i]);
    end_t = clock();
    printf("\nEnd of the  function, end_t = %ld\n", end_t);
    total_t = (double)(end_t - start_t) / CLOCKS_PER_SEC;
    printf("Total time taken by CPU: %d\n", total_t );
    printf("Exiting of the program...\n");
}

```

Output:

Enter size:

4

Enter array elements:

5 2 7 4

Starting of the function, start_t = 11250

In ascending order:2 4 5 7

End of the function, end_t = 11250

Total time taken by CPU: 0

Exiting of the program...