

//08:program to perform selection sort

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

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

```
#include<time.h>
```

```
void selection()
```

```
{
```

```
    int i,j,n,a[10],t,min;
```

```
    printf("ENTER THE LIMIT\n");
```

```
    scanf("%d",&n);
```

```
    printf("ENTER %d ELEMENTS\n",n);
```

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

```
        scanf("%d",&a[i]);
```

```
    for(i=0;i<n-1;i++)
```

```
    {
```

```
        min=i;
```

```
        for(j=i+1;j<n;j++)
```

```
        {
```

```
            if(a[j]<a[min])
```

```
                min=j;
```

```
        }
```

```
        t=a[i];
```

```
        a[i]=a[min];
```

```
        a[min]=t;
```

```
    }
```

```
    printf("THE SORTED ELEMENTS ARE\n");
```

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

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

```
}
```

```
int main()
```

```

{
    clock_t start,end;

    double t;

    start=clock();

    selection();

    end=clock();

    t=(double)(end-start)/CLOCKS_PER_SEC;

    printf("\nEXECUTION TIME : %f\n",t);

    return 0;
}

```

Output:

"D:\Users\User\3D Objects\@SUB Access\Dock 1\2nd Yr\4th Sem\Lab\DAA\Programs\08_Selection sort\Pgm\Selection sort\bin\Debug\Selection sort.exe"

```

ENTER THE LIMIT
5
ENTER 5 ELEMENTS
12 13 4 23 4343 32
THE SORTED ELEMENTS ARE
4      12      13      23      4343
EXECUTION TIME : 14.100000

Process returned 0 (0x0)   execution time : 14.370 s
Press any key to continue.

```

"D:\Users\User\3D Objects\@SUB Access\Dock 1\2nd Yr\4th Sem\Lab\DAA\Programs\08_Selection sort\Pgm\Selection sort\bin\Debug\Selection so

```

ENTER THE LIMIT
7
ENTER 7 ELEMENTS
3244 3223 324 544 232 23 554
THE SORTED ELEMENTS ARE
23      232      324      544      554      3223      3244
EXECUTION TIME : 16.459000

Process returned 0 (0x0)   execution time : 16.595 s
Press any key to continue.

```