File   Edit   View   Search   Project   Build   Debug   Fortran   wxSmith   Tools   Tools+   Plugins   DoxyBlocks   Settings   Help

<global>   main() : int

Start here   quicksort.c   merge_sort.c   bubblesort_time.c

```c
 1    #include<stdio.h>
 2    #include<math.h>
 3    #include<string.h>
 4    #include<stdlib.h>
 5    #include<time.h>
 6    void swap(int *a,int *b)
 7    {
 8        int temp;
 9        temp=*a;
10        *a=*b;
11        *b=temp;
12    }
13    int partition(int a[],int start,int end)
14    {
15        int pivot=a[end];
16        int pindex=start;
17        for(int i=start;i<end;i++)
18        {
19            if(a[i]<=pivot)
20            {
21                swap(&a[pindex],&a[i]);
22                pindex++;
23            }
24        }
25        swap(&a[pindex],&a[end]);
26        return pindex;
27    }
```

Logs & others

Code::Blocks   Search results   Cccc   Build log   Build messages   CppCheck/Vera++   CppCheck/Vera++ messages   Cscope   Debugger   DoxyBlocks   Fortran info   Closed files list   Thread search

Set variable: PATH=C:\TDM-GCC-64\bin;C:\TDM-GCC-64;C:\Windows\System32;C:\Windows;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;E:\Tanvi Photos\runtime\win64;E:\Tanvi Photos\bin;C:\Program Files\MATLAB\R2014b\bin;C:\Program Files\Git\cmd;C:\Program Files (x86)\Brackets\command;C:\Program Files\TortoiseSVN\bin;C:\Program Files (x86)\nodejs;C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\110\Tools\Binn;C:\Program Files (x86)\Microsoft SQL Server\120\Tools\Binn;C:\Program Files\Microsoft SQL Server\120\Tools\Binn;C:\Program Files\Microsoft SQL Server\120\DTS\Binn;C:\Program Files (x86)\Microsoft SQL Server\120\Tools\Binn\ManagementStudio;C:\Program Files (x86)\Microsoft SQL Server\120\DTS\Binn;C:\Users\Shreehari Kulkarni\AppData\Local\Programs\Python\Python38\Scripts;C:\Users\Shreehari Kulkarni\AppData\Local\Programs\Python\Python38;C:\Users\Shreehari Kulkarni\AppData\Local\Programs\Python\Python35\Scripts;C:\Users\Shreehari Kulkarni\AppData\Local\Programs\Python\Python35;C:\Users\Shreehari Kulkarni\AppData\Local\Programs\Python\Python37\Scripts;C:\Users\Shreehari Kulkarni\AppData\Local\Programs\Python\Python37;C:\Users\Shreehari Kulkarni\AppData\Local\Microsoft\WindowsApps;C:\Users\Shreehari Kulkarni\AppData\Local\Programs\Microsoft VS Code\bin;C:\Program Files\JetBrains\PyCharm Community Edition 2020.2.1\bin;\;C:\Program Files\Java\jdk-14.0.2\bin;C:\tools\dart-sdk\bin;C:\src\flutter\bin;C:\Users\Shreehari Kulkarni\AppData\Local\GitHubDesktop\bin;C:\Users\Shreehari Kulkarni\AppData\Roaming\npm
Process terminated with status -1073741510 (1 minute(s), 50 second(s))

File   Edit   View   Search   Project   Build   Debug   Fortran   wxSmith   Tools   Tools+   Plugins   DoxyBlocks   Settings   Help

`<global>`   `main() : int`

Start here   quicksort.c   merge_sort.c   bubblesort_time.c

```c
28    void quicksort(int a[],int start,int end)
29    {
30        //printf("HEloo\n");
31        if(start<end)
32        {
33            int pi=partition(a,start,end);
34            quicksort(a,start,pi-1);
35            quicksort(a,pi+1,end);
36        }
37    }
38    int main()
39    {
40        int n,option;
41        printf("Enter the number of the elements the array\n");
42        scanf("%d",&n);
43        int a[n];
44        printf("Enter The Elements of the array\n");
45        printf("1:Input From User\n");
46        printf("2: Using Random Fucntion\n");
47        printf("Enter Your Option\n");
48        scanf("%d",&option);
49        printf("\n");
50        switch(option)
51        {
52        case 1:
53            printf("Enter The Elements\n");
54            for(int i=0;i<n;i++)
```

Logs & others

Code::Blocks   Search results   Cccc   Build log   Build messages   CppCheck/Vera++   CppCheck/Vera++ messages   Cscope   Debugger   DoxyBlocks   Fortran info   Closed files list   Thread search

```c
                {
                    scanf("%d",&a[i]);
                }
                break;
            case 2:
                printf("Elements Taken In Random Order\n");
                for(int i=0;i<n;i++)
                {
                    a[i]=rand();
                }
                break;
        }
        clock_t t;
        t=clock();
        quicksort(a,0,n-1);
        t=clock() - t;
        printf("Elements of the array are\n");
        double time_taken=((double)t)/CLOCKS_PER_SEC;
        for(int i=0;i<n;i++)
        {
            printf("%d\t",a[i]);
        }
        printf("\n Time taken for %d = %f seconds  \n",n,time_taken);
}
```

```
Enter the number of the elements the array
5
Enter The Elements of the array
1:Input From User
2: Using Random Fucntion
Enter Your Option
1

Enter The Elements
9
8
4
3
2
Elements of the array are
2       3       4       8       9
 Time taken for 5 = 0.000000 seconds

Process returned 0 (0x0)   execution time : 10.390 s
Press any key to continue.
```

Element Size	Time Taken(Random Order)	Worst Case
500	0.000065	0.00121
1000	0.000137	0.007962
1500	0.000219	0.007809
2000	0.000426	0.014279
2500	0.000474	0.020605
3000	0.000491	0.030722
3500	0.000555	0.041557
4000	0.000646	0.056423
4500	0.000821	0.09228
5000	0.000902	0.123589