

C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\Tower of Hanoi\tower_of_hanoi.cpp - Dev-C++ 5.11

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TDM-GCC 4.9.2 64-bit Release

(globals)

tower_of_hanoi.cpp

```
1 #include<stdio.h>
2 #include<time.h>
3 #include<math.h>
4 void towers(int n,char s, char t, char d)
5 {
6     if(n==1){
7         printf("Move disk 1 from %c to %c\n",s,d);
8         return;
9     }
10    towers(n-1,s,d,t);
11    printf("Move disk %d from %c to %c\n",n,s,d);
12    towers(n-1,t,s,d);
13 }
14 int main()
15 {
16     int n;
17     printf("Enter no. of disks : ");
18     scanf("%d",&n);
19     double toh_time=0.0;
20     clock_t begin=clock();
21     towers(n,'S','T','D');
22     printf("\nTotal Steps : %d", (pow(2,n)-1));
23     clock_t end=clock();
24     toh_time+=(double)(end-begin)/CLOCKS_PER_SEC;
25     printf("\nn=%d\tTime: %f\n",n,toh_time);
26     return 0;
27 }
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

☐ Shorten compiler paths

Compilation results...

```
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- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\Tower of Hanoi\tower_of_hanoi.exe
- Output Size: 151.9306640625 KiB
- Compilation Time: 0.14s
```

Line: 1 Col: 1 Sel: 0 Lines: 27 Length: 651 Insert Done parsing in 0.063 seconds

Type here to search

12:38 12-05-2021

C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\Tower of Hanoi\tower_of_hanoi.cpp - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

TDM-GCC 4.9.2 64-bit Release

tower_of_hanoi.cpp

```
1 #include <iostream>
2 #include <conio.h>
3 #include <string.h>
4 #include <math.h>
5 #include <time.h>
6 #include <stdlib.h>
7 #include <stdio.h>
8 #include <ctype.h>
9 #include <limits.h>
10 #include <unistd.h>
11 #include <sys/types.h>
12 #include <sys/stat.h>
13 #include <fcntl.h>
14 #include <sys/time.h>
15 #include <sys/resource.h>
16 #include <sys/mman.h>
17 #include <sys/wait.h>
18 #include <sys/socket.h>
19 #include <sys/un.h>
20 #include <sys/poll.h>
21 #include <sys/select.h>
22 #include <sys/event.h>
23 #include <sys/epoll.h>
24 #include <sys/rwlock.h>
25 #include <sys/sem.h>
26 #include <sys/shm.h>
27 #include <sys/mount.h>
28 #include <sys/quot.h>
29 #include <sys/vfs.h>
30 #include <sys/uio.h>
31 #include <sys/xattr.h>
32 #include <sys/sysmacros.h>
33 #include <sys/sysinfo.h>
34 #include <sys/syslog.h>
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96 #include <sys/syslog.h>
97 #include <sys/syslog.h>
98 #include <sys/syslog.h>
99 #include <sys/syslog.h>
100 #include <sys/syslog.h>
```

Enter no. of disks : 4

Move disk 1 from S to T

Move disk 2 from S to D

Move disk 1 from T to D

Move disk 3 from S to T

Move disk 1 from D to S

Move disk 2 from D to T

Move disk 1 from S to T

Move disk 4 from S to D

Move disk 1 from T to D

Move disk 2 from T to S

Move disk 1 from D to S

Move disk 3 from T to D

Move disk 1 from S to T

Move disk 2 from S to D

Move disk 1 from T to D

Total Steps : 15.000000

n=4 Time:0.003000

Process exited after 2.289 seconds with return value 0

Press any key to continue . . .

Compilation results...

- Errors: 0

- Warnings: 0

- Output Filename: C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\Tower of Hanoi\tower_of_hanoi.exe

- Output Size: 151.9306640625 KiB

- Compilation Time: 0.16s

Line: 1 Col: 1 Sel: 0 Lines: 27 Length: 651 Insert Done parsing in 0.063 seconds

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