C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\BFS traversal\BFS.cpp - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

TDM-GCC 4.9.2 64-bit Release

(globals)

BFS.cpp

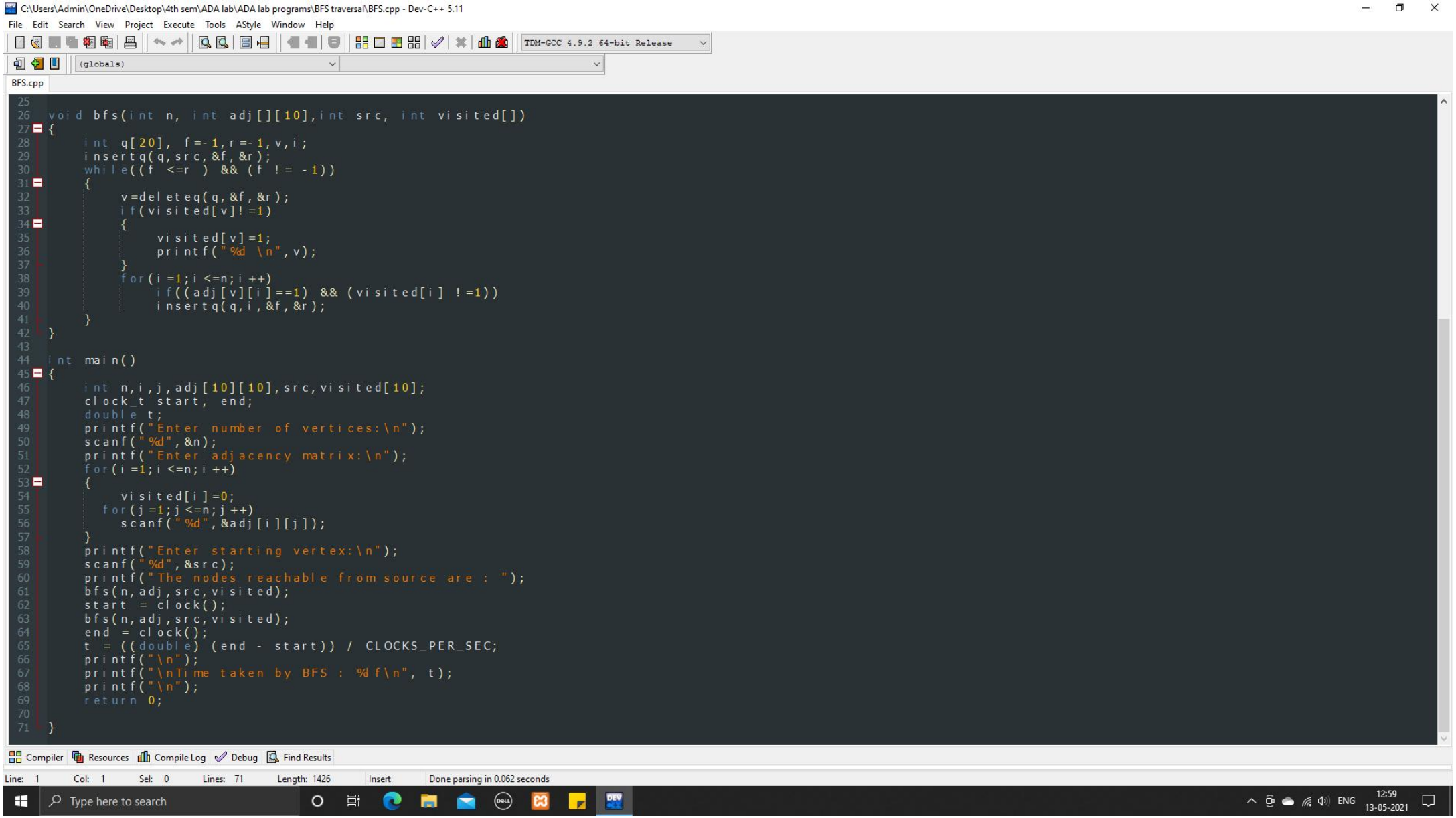
```
#include<stdio.h>
#include<stdlib.h>
#include<stdio.h>
#include <time.h>
void insertq(int q[],int node, int *f, int *r)
{
    if((*f==-1) && (*r==-1))
    {
     (*f)++, (*r)++, q[*f]=node;
    }
    else
    {
     (*r)++, q[*r]=node;
     }
}

int deleteq(int q[],int *f,int *r)
{
     int temp;
     temp=q[*f];
     if(*f == *r) *f=*r=-1;
     else (*f)++;
     return temp;
}

void bfs(int n, int adj[][10],int src, int visited[])
{
     int q[20], f=-1,r=-1,v,i;
     insertq(q,src,&f,&r);
     while((f <=r ) && (f != -1))
     {
          v=deleteq(q,&f,&r);
          if(visited[v]!=1)
          {
               visited[v]=1;
               printf("%d \n",v);
          }
          for(i=1;i<=n;i++)
               if((adj[v][i]==1) && (visited[i] !=1))
               insertq(q,i,&f,&r);
     }
}

int main()
{
     int n,i,j,adj[10][10],src,visited[10];
     clock_t start, end;
     double t;
```

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 71 Length: 1426 Insert Done parsing in 0.062 seconds

Type here to search

ENG 12:59 13-05-2021


C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\BFS traversal\BFS.cpp - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
BFS.cpp
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int q[20], f=-1,r=-1,v,i;
insertq(q,src,&f,&r);
while((f <=r) && (f != -1))
{
v=deleteq(q,&f,&r);
if(visited[v]!=1)
{
visited[v]=1;
printf("%d \n",v);
}
for(i=1;i<=n;i++)
if((adj[v][i]==1) && (visited[i] !=1))
insertq(q,i,&f,&r);
}
}
int main()
{
int n,i,j,adj[10][10],src,visited[10];
clock_t start, end;
double t;
printf("Enter number of vertices:\n");
scanf("%d",&n);
printf("Enter adjacency matrix:\n");
for(i=1;i<=n;i++)
{
visited[i]=0;
for(j=1;j<=n;j++)
scanf("%d",&adj[i][j]);
}
printf("Enter starting vertex:\n");
scanf("%d",&src);
printf("The nodes reachable from source are : ");
bfs(n,adj,src,visited);
start = clock();
bfs(n,adj,src,visited);
end = clock();
t = ((double) (end - start)) / CLOCKS_PER_SEC;
printf("\n");
printf("\nTime taken by BFS : %f\n", t);
printf("\n");
return 0;
}
Compiler Resources Compile Log Debug Find Results
Line: 1 Col: 1 Sel: 0 Lines: 71 Length: 1426 Insert Done parsing in 0.062 seconds
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ENG
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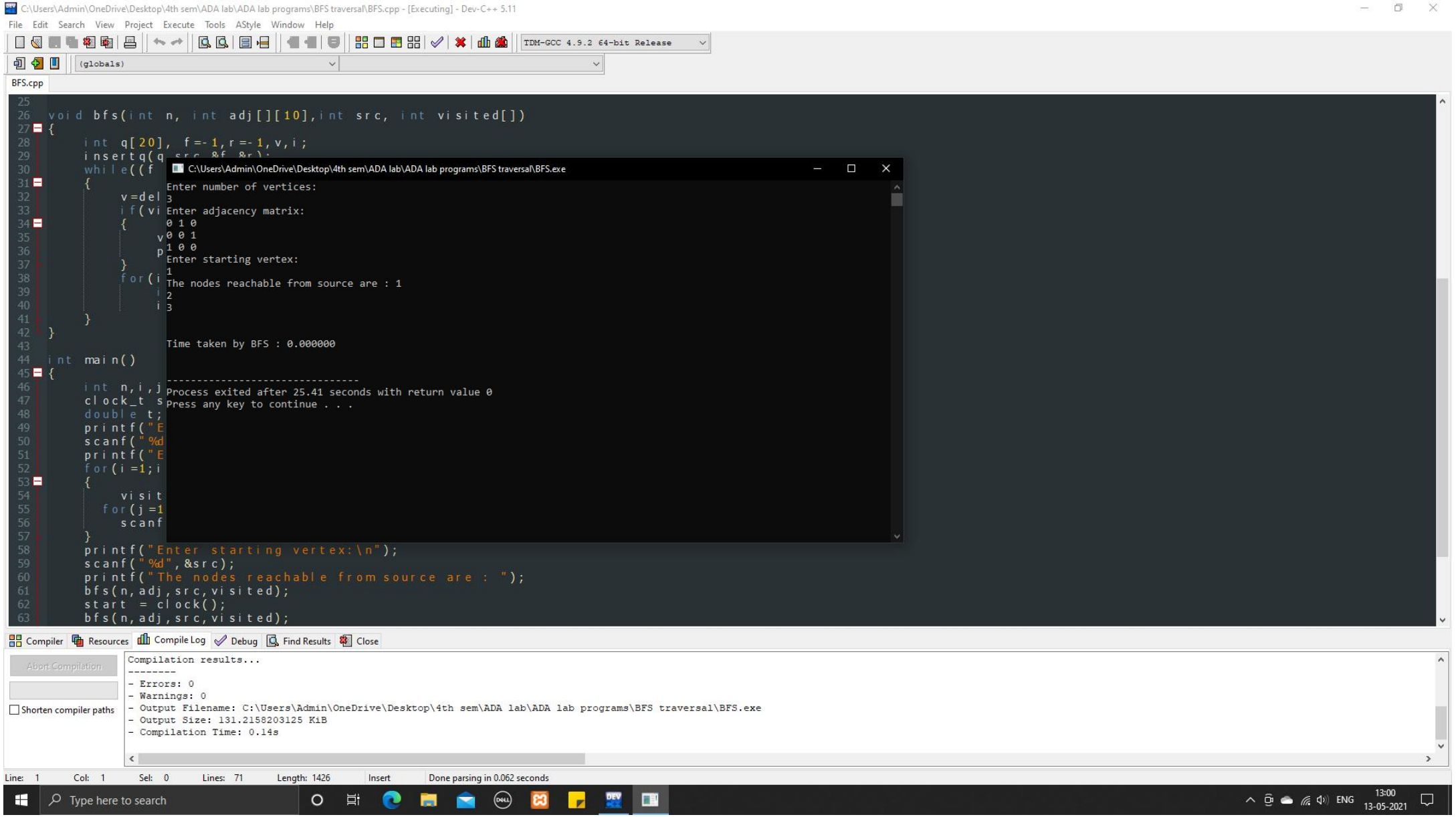
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File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
BFS.cpp
void bfs(int n, int adj[][10],int src, int visited[])
{
int q[20], f=-1,r=-1,v,i;
int main()
{
int n,i,j
clock_t s
double t;
printf("E
scanf("%d
printf("E
for(i=1;i
visit
for(j=1
scanf
}
printf("Enter starting vertex:\n");
scanf("%d",&src);
printf("The nodes reachable from source are : ");
bfs(n,adj,src,visited);
start = clock();
bfs(n,adj,src,visited);
C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\BFS traversal\BFS.exe
Enter number of vertices:
3
Enter adjacency matrix:
0 1 0
0 0 1
1 0 0
Enter starting vertex:
1
The nodes reachable from source are : 1
2
3
Time taken by BFS : 0.000000

Process exited after 25.41 seconds with return value 0
Press any key to continue . . .
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\BFS traversal\BFS.exe
- Output Size: 131.2158203125 KiB
- Compilation Time: 0.14s
Line: 1 Col: 1 Sel: 0 Lines: 71 Length: 1426 Insert Done parsing in 0.062 seconds
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Book1 - Excel

Sohan Kumar

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Cut Copy Format Painter Paste — Clipboard

Calibri 11 — Font

Wrap Text Merge & Center — Alignment

General — Number

Conditional Formatting Format as Table

Normal Bad Good Neutral Calculation Check Cell Explanatory ... Input Linked Cell Note — Styles

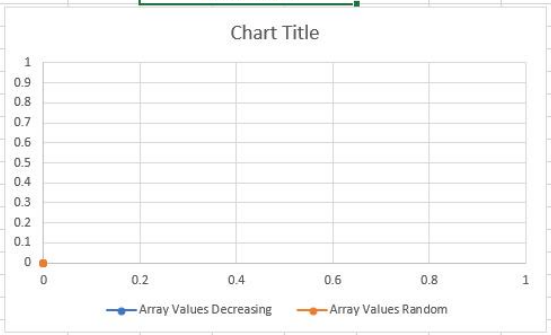
Insert Delete Format — Cells

AutoSum Fill Clear Sort & Filter Find & Select — Editing

K1 BFS traversal

	A	B	C	D
1		Array Values		
2	Array Size	Increasing	Decreasing	Random
3	1	0	0	0
4	2	0	0	0
5	3	0	0	0
6	4	0	0	0
7	5	0	0	0
8	6	0	0	0
9	7	0	0	0
10	8	0	0	0

BFS traversal



Sheet1

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