

graphs

0.1.0

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Graph	5
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Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

/home/benson/CPTR227/HW14---Graphs-1/src/ main.cpp	
This is a test of CMake, doxygen, and GitHub	9

Chapter 3

Class Documentation

3.1 Graph Class Reference

Public Member Functions

- [Graph](#) (int n0)
- void [addEdge](#) (int i, int j)
- void [removeEdge](#) (int i, int j)
- bool [hasEdge](#) (int i, int j)
- void [outEdges](#) (int i, vector< int > &edges)
- void [inEdges](#) (int i, vector< int > &edges)
- void [printGraph](#) ()

3.1.1 Detailed Description

Definition at line 14 of file main.cpp.

3.1.2 Constructor & Destructor Documentation

3.1.2.1 Graph()

```
Graph::Graph (  
    int n0 ) [inline]
```

Definition at line 19 of file main.cpp.

```
19         {  
20             n = n0;  
21             for(int i = 0; i < n; i++) {  
22                 vector <bool> row(n, false);  
23                 a.push_back(row);  
24             }  
25         }
```

3.1.3 Member Function Documentation

3.1.3.1 addEdge()

```
void Graph::addEdge (
    int i,
    int j ) [inline]
```

Definition at line 27 of file main.cpp.

```
27     {
28         a[i][j] = true;
29     }
```

3.1.3.2 hasEdge()

```
bool Graph::hasEdge (
    int i,
    int j ) [inline]
```

Definition at line 35 of file main.cpp.

```
35     {
36         return a[i][j];
37     }
```

3.1.3.3 inEdges()

```
void Graph::inEdges (
    int i,
    vector< int > & edges ) [inline]
```

Definition at line 43 of file main.cpp.

```
43     {
44         for (int j = 0; j < n; j++)
45             if (a[j][i]) edges.push_back(j);
46     }
```

3.1.3.4 outEdges()

```
void Graph::outEdges (
    int i,
    vector< int > & edges ) [inline]
```

Definition at line 39 of file main.cpp.

```
39     {
40         for (int j = 0; j < n; j++)
41             if (a[i][j]) edges.push_back(j);
42     }
```

3.1.3.5 printGraph()

```
void Graph::printGraph ( ) [inline]
```

Definition at line 48 of file main.cpp.

```
48     {
49         for (int i = 0; i < n; i++) {
50             cout << i << ":\t";
51             for (int j = 0; j < n; j++){
52                 cout << a[i][j] << "\t";
53             }
54             cout << "\n";
55         }
56     }
```

3.1.3.6 removeEdge()

```
void Graph::removeEdge (
    int i,
    int j ) [inline]
```

Definition at line 31 of file main.cpp.

```
31     {
32         a[i][j] = false;
33     }
```

The documentation for this class was generated from the following file:

- /home/benson/CPTR227/HW14---Graphs-1/src/[main.cpp](#)

Chapter 4

File Documentation

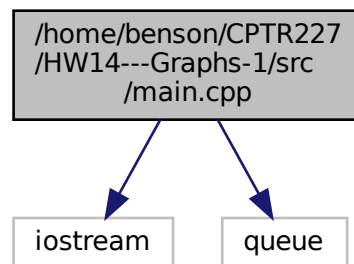
4.1 /home/benson/CPTR227/HW14---Graphs-1/src/main.cpp File Reference

This is a test of CMake, doxygen, and GitHub.

```
#include <iostream>
```

```
#include <queue>
```

Include dependency graph for main.cpp:



Classes

- class [Graph](#)

Functions

- int [main](#) ()

4.1.1 Detailed Description

This is a test of CMake, doxygen, and GitHub.

This is the long brief at the top of [main.cpp](#).

Author

Benson Nyakango

Date

3/30/21

4.1.2 Function Documentation

4.1.2.1 main()

```
int main ( )
```

Definition at line 60 of file main.cpp.

```
60     {  
61     Graph g(12);  
62  
63     g.addEdge(0, 1);  
64     g.addEdge();  
65  
66  
67     g.printGraph();  
68 }
```

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