AD Project - Method 1

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1.1 File List

Here is a list of all documented files with brief descriptions:

Chapter 2

File Documentation

2.1 functions.c File Reference

This file contains all the functions needed in Dijkstra Algorithm to find the shortest path between two nodes.

```
#include "functions.h"
```

Macros

- #define **INF** 0x3fffffff
- #define **V** 6

2.1.1 Detailed Description

This file contains all the functions needed in Dijkstra Algorithm to find the shortest path between two nodes.

Author

Radu Popa

Date

6/05/2018

2.2 functions.h File Reference

This header file contains all the required definitions of the functions used in Dijkstra Algorithm.

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

Macros

- #define **MAIN_H_INCLUDED**
- #define **V** 6

Functions

- int findMin (int x, int y)
- int checkMarked (int n, int markedNodes[ ], int markedNodesIndex)
- void dijkstra (int graph[V][V], int source, int destination)

2.2.1 Detailed Description

This header file contains all the required definitions of the functions used in Dijkstra Algorithm.

Author

Radu Popa

Date

05.06.2018.

2.2.2 Function Documentation

2.2.2.1 checkMarked()

```
int checkMarked (
            int n,
            int markedNodes[],
            int markedNodesIndex )
```

This function checks if the vertex is marked.

Parameters

v	integer
markedNodes[ ]	array of integers
markedNodesIndex	integer

Definition at line 28 of file functions.c.

2.2.2.2 dijkstra()

```
void dijkstra (
             int graph[V][V],
             int source,
             int destination )
```

This function finds the shortest path between the source and the destination nodes.

Parameters

graph[][]	matrix
source	integer
destination	integer variables

Definition at line 43 of file functions.c.

2.2.2.3 findMin()

```
int findMin (
             int x,
             int y )
```

This function returns the minimum value between two numbers.

Parameters

a	First integer
b	Second integer

Definition at line 16 of file functions.c.

2.3 method1.c File Reference

C program to find the shortest path between two nodes, using Dijkstra Algorithm.

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

Macros

- #define INF 0x3fffffff
- #define **V** 6

2.3.1 Detailed Description

C program to find the shortest path between two nodes, using Dijkstra Algorithm.

Author

Radu Popa

Date

05.06.2018

2.3.2 Macro Definition Documentation

2.3.2.1 INF

```
#define INF 0x3fffffff
```

printf(), scanf() dijkstra()

Definition at line 8 of file method1.c.

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