

AD Project - Method 1

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Chapter 1

File Index

1.1 File List

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

functions.c	This file contains all the functions needed in Dijkstra Algorithm to find the shortest path between two nodes	3
functions.h	This header file contains all the required definitions of the functions used in Dijkstra Algorithm .	3
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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

<i>v</i>	integer
<i>markedNodes[]</i>	array of integers
<i>markedNodesIndex</i>	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

<i>graph</i> [][]	matrix
<i>source</i>	integer
<i>destination</i>	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

<i>a</i>	First integer
<i>b</i>	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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