

Grafos Python

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Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

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kruskal	11
main	13
prim	14
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Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

object	
graph.Graph	18
graph.Graph.AdjList	15
graph.Graph.AdjNode	16

Chapter 3

Class Index

3.1 Class List

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

graph.Graph.AdjList	15
graph.Graph.AdjNode	16
graph.Graph	18

Chapter 4

File Index

4.1 File List

Here is a list of all files with brief descriptions:

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kruskal.py	22
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prim.py	23
puntos_articu.py	23

Chapter 5

Namespace Documentation

5.1 `busqueda_anchura` Namespace Reference

Functions

- def `busqueda_por_anchura` (`gph`)
- def `ShortestPath` (`gph`, `raiz`)
- def `busqueda_por_anchura_Queue` (`gph`, `index`, `visitado_verti`)

5.1.1 Function Documentation

5.1.1.1 `busqueda_por_anchura()`

```
def busqueda_anchura.busqueda_por_anchura (
    gph )
```

Definition at line 4 of file `busqueda_anchura.py`.

5.1.1.2 `busqueda_por_anchura_Queue()`

```
def busqueda_anchura.busqueda_por_anchura_Queue (
    gph,
    index,
    visitado_verti )
```

Definition at line 36 of file `busqueda_anchura.py`.

5.1.1.3 ShortestPath()

```
def busqueda_anchura.ShortestPath (
    gph,
    raiz )
```

Definition at line 13 of file busqueda_anchura.py.

5.2 busqueda_profunda Namespace Reference

Functions

- def [DFSStack](#) (*gph*)
- def [busqueda_por_profundidad](#) (*gph*)
- def [DFSRec](#) (*gph*, *index*, *visitado_verti*)

5.2.1 Function Documentation

5.2.1.1 busqueda_por_profundidad()

```
def busqueda_profunda.busqueda_por_profundidad (
    gph )
```

Definition at line 19 of file busqueda_profunda.py.

5.2.1.2 DFSRec()

```
def busqueda_profunda.DFSRec (
    gph,
    index,
    visitado_verti )
```

Definition at line 30 of file busqueda_profunda.py.

5.2.1.3 DFSStack()

```
def busqueda_profunda.DFSStack (
    gph )
```

Definition at line 4 of file busqueda_profunda.py.

5.3 djikstra Namespace Reference

Functions

- def [Dijkstra](#) (gph, raiz)

5.3.1 Function Documentation

5.3.1.1 Dijkstra()

```
def djikstra.Dijkstra (
    gph,
    raiz )
```

Definition at line 5 of file djikstra.py.

5.4 graph Namespace Reference

Classes

- class [Graph](#)

5.5 header Namespace Reference

5.6 kruskal Namespace Reference

Functions

- def [make_set](#) (vertice)
- def [find](#) (vertice)
- def [union](#) (vertice1, vertice2)
- def [kruskal](#) (graph)

Variables

- [parent](#) = dict()
- [rank](#) = dict()
- dictionary [graph](#)

5.6.1 Function Documentation

5.6.1.1 find()

```
def kruskal.find (
    vertice )
```

Definition at line 8 of file kruskal.py.

5.6.1.2 kruskal()

```
def kruskal.kruskal (
    graph )
```

Definition at line 23 of file kruskal.py.

5.6.1.3 make_set()

```
def kruskal.make_set (
    vertice )
```

Definition at line 4 of file kruskal.py.

5.6.1.4 union()

```
def kruskal.union (
    vertice1,
    vertice2 )
```

Definition at line 13 of file kruskal.py.

5.6.2 Variable Documentation

5.6.2.1 graph

dictionary `kruskal.graph`

Initial value:

```
1 = {
2 'vertices': ['A', 'B', 'C', 'D', 'E', 'F', 'G'],
3 'edges': set([
4 (7, 'A', 'B'),
5 (5, 'A', 'D'),
6 (7, 'B', 'A'),
7 (8, 'B', 'C'),
8 (9, 'B', 'D'),
9 (7, 'B', 'E'),
10 (8, 'C', 'B'),
11 (5, 'C', 'E'),
12 (5, 'D', 'A'),
13 (9, 'D', 'B'),
14 (7, 'D', 'E'),
15 (6, 'D', 'F'),
16 (7, 'E', 'B'),
17 (5, 'E', 'C'),
18 (15, 'E', 'D'),
19 (8, 'E', 'F'),
20 (9, 'E', 'G'),
21 (6, 'F', 'D'),
22 (8, 'F', 'E'),
23 (11, 'F', 'G'),
24 (9, 'G', 'E'),
25 (11, 'G', 'F'),
26 ])
27 }
```

Definition at line 38 of file `kruskal.py`.

5.6.2.2 parent

`kruskal.parent = dict()`

Definition at line 1 of file `kruskal.py`.

5.6.2.3 rank

`kruskal.rank = dict()`

Definition at line 2 of file `kruskal.py`.

5.7 main Namespace Reference

Variables

- `gph = Graph(9)`

5.7.1 Variable Documentation

5.7.1.1 gph

```
main.gph = Graph(9)
```

Definition at line 8 of file main.py.

5.8 prim Namespace Reference

Functions

- def [Prim_metodo](#) (gph)

5.8.1 Function Documentation

5.8.1.1 Prim_metodo()

```
def prim.Prim_metodo (  
    gph )
```

Definition at line 5 of file prim.py.

5.9 puntos_articu Namespace Reference

Functions

- def [PathExist](#) (gph, raiz, destino_ver_dat)
- def [isConnected](#) (gph)

5.9.1 Function Documentation

5.9.1.1 isConnected()

```
def puntos_articu.isConnected (  
    gph )
```

Definition at line 13 of file puntos_articu.py.

5.9.1.2 PathExist()

```
def puntos_articu.PathExist (  
    gph,  
    raiz,  
    destino_ver_dat )
```

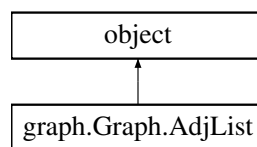
Definition at line 4 of file puntos_articu.py.

Chapter 6

Class Documentation

6.1 graph.Graph.AdjList Class Reference

Inheritance diagram for graph.Graph.AdjList:



Public Member Functions

- `def __init__ (self)`

Public Attributes

- [head](#)

6.1.1 Detailed Description

Definition at line 12 of file graph.py.

6.1.2 Constructor & Destructor Documentation

6.1.2.1 `__init__()`

```
def graph.Graph.AdjList.__init__ (  
    self )
```

Definition at line 13 of file graph.py.

6.1.3 Member Data Documentation

6.1.3.1 head

`graph.Graph.AdjList.head`

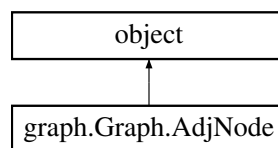
Definition at line 14 of file `graph.py`.

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

- [graph.py](#)

6.2 graph.Graph.AdjNode Class Reference

Inheritance diagram for `graph.Graph.AdjNode`:



Public Member Functions

- `def __init__(self, src, dst, cst=1)`

Public Attributes

- `raiz`
- `destino_ver_dat`
- `cost`
- `next`

6.2.1 Detailed Description

Definition at line 5 of file `graph.py`.

6.2.2 Constructor & Destructor Documentation

6.2.2.1 `__init__()`

```
def graph.Graph.AdjNode.__init__ (
    self,
    src,
    dst,
    cst = 1 )
```

Definition at line 6 of file graph.py.

6.2.3 Member Data Documentation

6.2.3.1 `cost`

`graph.Graph.AdjNode.cost`

Definition at line 9 of file graph.py.

6.2.3.2 `destino_ver_dat`

`graph.Graph.AdjNode.destino_ver_dat`

Definition at line 8 of file graph.py.

6.2.3.3 `next`

`graph.Graph.AdjNode.next`

Definition at line 10 of file graph.py.

6.2.3.4 `raiz`

`graph.Graph.AdjNode.raiz`

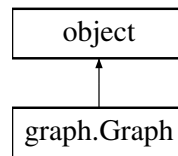
Definition at line 7 of file graph.py.

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

- [graph.py](#)

6.3 graph.Graph Class Reference

Inheritance diagram for graph.Graph:



Classes

- class [AdjList](#)
- class [AdjNode](#)

Public Member Functions

- def [__init__](#) (self, cnt)
- def [AddEdge](#) (self, raiz, destino_ver_dat, cost=1)
- def [AddBiEdge](#) (self, raiz, destino_ver_dat, cost=1)
- def [Print](#) (self)

Public Attributes

- [count](#)
- [array](#)

6.3.1 Detailed Description

Definition at line 4 of file graph.py.

6.3.2 Constructor & Destructor Documentation

6.3.2.1 __init__()

```
def graph.Graph.__init__ (
    self,
    cnt )
```

Definition at line 17 of file graph.py.

6.3.3 Member Function Documentation

6.3.3.1 AddBiEdge()

```
def graph.Graph.AddBiEdge (
    self,
    raiz,
    destino_ver_dat,
    cost = 1 )
```

Definition at line 31 of file graph.py.

6.3.3.2 AddEdge()

```
def graph.Graph.AddEdge (
    self,
    raiz,
    destino_ver_dat,
    cost = 1 )
```

Definition at line 26 of file graph.py.

6.3.3.3 Print()

```
def graph.Graph.Print (
    self )
```

Definition at line 35 of file graph.py.

6.3.4 Member Data Documentation

6.3.4.1 array

graph.Graph.array

Definition at line 19 of file graph.py.

6.3.4.2 count

graph.Graph.count

Definition at line 18 of file graph.py.

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

- [graph.py](#)

Chapter 7

File Documentation

7.1 `busqueda_anchura.py` File Reference

Namespaces

- [busqueda_anchura](#)

Functions

- def [busqueda_anchura.busqueda_por_anchura](#) (gph)
- def [busqueda_anchura.ShortestPath](#) (gph, raiz)
- def [busqueda_anchura.busqueda_por_anchura_Queue](#) (gph, index, visitado_verti)

7.2 `busqueda_profunda.py` File Reference

Namespaces

- [busqueda_profunda](#)

Functions

- def [busqueda_profunda.DFSStack](#) (gph)
- def [busqueda_profunda.busqueda_por_profundidad](#) (gph)
- def [busqueda_profunda.DFSRec](#) (gph, index, visitado_verti)

7.3 `dijkstra.py` File Reference

Namespaces

- [dijkstra](#)

Functions

- def [dijkstra.Dijkstra](#) (gph, raiz)

7.4 graph.py File Reference

Classes

- class [graph.Graph](#)
- class [graph.Graph.AdjNode](#)
- class [graph.Graph.AdjList](#)

Namespaces

- [graph](#)

7.5 header.py File Reference

Namespaces

- [header](#)

7.6 kruskal.py File Reference

Namespaces

- [kruskal](#)

Functions

- def [kruskal.make_set](#) (vertice)
- def [kruskal.find](#) (vertice)
- def [kruskal.union](#) (vertice1, vertice2)
- def [kruskal.kruskal](#) (graph)

Variables

- [kruskal.parent](#) = dict()
- [kruskal.rank](#) = dict()
- dictionary [kruskal.graph](#)

7.7 main.py File Reference

Namespaces

- [main](#)

Variables

- [main.gph](#) = Graph(9)

7.8 prim.py File Reference

Namespaces

- [prim](#)

Functions

- def [prim.Prim_metodo](#) (gph)

7.9 puntos_articu.py File Reference

Namespaces

- [puntos_articu](#)

Functions

- def [puntos_articu.PathExist](#) (gph, raiz, destino_ver_dat)
- def [puntos_articu.isConnected](#) (gph)

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