Grafos Python

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Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

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

Chapter 3

Class Index

3.1 Class List

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

Chapter 4

File Index

4.1 File List

Here is a list of all files with brief descriptions:

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 )
```

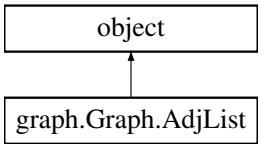
Definition at line 4 of file puntos_articu.py.

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`

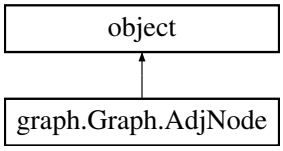
Definition at line 14 of file graph.py.

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
```

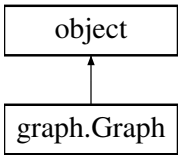
Definition at line 7 of file graph.py.

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 djikstra.py File Reference

Namespaces

- djikstra

Functions

- def djikstra.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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