Pomoć oko funkcija

Python funkcija help dohvaća službenu dokumentaciju predane funkcije (koja često sadrži i primjere korištenja). Primjer:

```
help(networkx.Graph)
```

Potrebni importovi

```
import networkx as nx
import matplotlib.pyplot as plt
import numpy as np
import itertools
import random
from simulation import Simulation
```

Inicijalizacija mreže

```
graph = nx.Graph()
graph = nx.DiGraph()
```

Dodavanje čvorova i veza

```
graph.add_node()
graph.add_nodes_from()

graph.add_edge()
graph.add_edges_from()
```

Iteriranje po čvorovima ili vezama

```
graph.nodes()
graph.edges()
```

Dodavanje i pristupanje atributima čvorova i veza

```
nx.set_node_attributes(graph, value, attribute)

nx.get_node_attributes(graph, attribute)


nx.set_edge_attributes(graph, value, attribute)

nx.get_edge_attributes(graph, attribute)
```

Prikaz mreže

```
nx.draw(graph)

nx.draw_networkx(graph, node_color, labels, pos)
```

Podmreže

```
nx.subgraph(graph, subgraph_nodes)

nx.find_cliques(graph)

nx.connected_components(graph)
```

Stupnjevi čvorova

```
graph.degree()

graph.in_degree()

graph.out_degree()
```

Čitanje i pisanje

```
nx.read_edgelist(path)

nx.write_edgelist(graph, path)
```

Svojstvene vrijednosti mreže

```
graph.number_of_nodes()

graph.number_of_edges()
```

```
nx.degree_assortativity_coefficient(graph)

nx.average_shortest_path_length(graph)

nx.diameter(graph)

nx.average_clustering(graph)

nx.degree_centrality(graph)

nx.betweenness_centrality(graph)

nx.is_connected(graph)

nx.density(graph)
```

K-jezgrena dekompozicija

```
nx.k_core(graph, k)

nx.k_shell(graph, k)
```

Slučajni modeli

```
nx.gnp_random_graph(n_nodes, probability)

nx.gnm_random_graph(n_nodes, n_edges)

nx.watts_strogatz_graph(n_nodes, n_neighbours_to_join, rewiring_probability)

nx.barabasi_albert_graph(n_nodes, n_connections)
```

Kombinacije elemenata

```
itertools.combinations(iterator, combination_length)
```

Simulacija

```
sim = Simulation(G, initial_state, state_transition, name)

sim.state()

sim.run()

sim.plot()
```