

find_Route.py input.txt luebeck Bremen

src = node = Luebeck

dest = graphnode = Bremen

graph = {one city with its neighbouring city}

generated = 0

expanded = 0

Fringe = P()

Fringe = {(0, 'luebeck')}

visited = {'luebeck': (0, 0)}

Parsed = []

max_node = 0

'luebeck': ('', 0), 'Hamburg': ('luebeck', 63)

'Bremen': ('Hamburg', 179), 'Hannover': ('Hamburg', 216),

'Berlin': ('Hannover', 354),

if kwhile : not empty :

iteration

obdiktatot

- , node_count = 0 , Luebeck

expanded = 1

if Luebeck == Bremen:

No

if Luebeck in parsed:

No

parsed = ['Luebeck']

for g in {'Hamburg': 63.0}:

generated = 1

fringe = {('63', Hamburg)}

in visisted:

while not empty:

dequeue:

nodeinfo

-, nodecount = '63', Hamburg

expanded = 2

if Hamburg == Bremen:

No

if Hamburg in parsed:

No

parsed = ['Luebeck', 'Hamburg']

for i in {'Luebeck': 63, 'Bremen': 116, 'Hannover': 153, 'Berlin': 291},

'Hannover': 153, 'Berlin': 291, 'Bremen': 116},

generated = 2

fringe = {(116, Luebeck)}

for q in {→; 'Bremen': 116, 'Berlin': 291, → -}

generated = 3

fringe = {(116, Luebeck), (Berlin, 291), (179, Bremen)}

if Bremen not in visited:

visited[Bremen] = (Hamburg; 149)

291

63
54

for q in {→; "Hannover": 153, → -}

generated = 3

fringe = {→ -, (216, Hamburg)}

Hannover not in visited:

for t in (→ "Bremen": 291)

generated = 4

fringe = {→ -, (216, Bremen)}

while not empty:

while loop:

node-queue

-> node-count = 126, 'luebeck')

expanded = 3

if -+-

no

if node-:

yes.

for even

while not empty:

while loop

node-queue

-> node-count = 179

expanded = 4

rL Bernen = 100

yes.

Break;

route: [Hamburg, Luebeck)

if Bernen is visited:

Yes.

distance = 0.0

node-count = Bernen

while Bernen != luebeck:

distance = 116

node-count = Hamburg

distance = 116 + 63 = 179

node-count = luebeck