

NETWORKS AND COMPLEXITY

Solution 2-4

This is an example solution from the forthcoming book Networks and Complexity.

Find more exercises at <https://github.com/NC-Book/NCB>

Ex 2.4: Another world [2]

Use Dijkstra's Algorithm to find the shortest path from Kliften to Solhaven in the network described by the following link list:

Solhaven

to Fimoria 3
to Isangel 23
to Fort Kerron 4
to Silvester 2

Isangel

to Fimoria 2
to Solhaven 22
to Tewen 40
to Kliften 1

Silvester

to Solhaven 2
to Tewen 1

Fimoria

to Solhaven 3
to Fort Kerron 5
to Isangel 2
to Kliften 4

Kliften

to Isangel 1
to Fimoria 5
to Tewen 48
to Fort Kerron 9

Tewen

to Silvester 1
to Solhaven 1

Fort Kerron

to Solhaven 4
to Fimoria 5

Solution

Using Dijkstra's algorithm results in the following table

Solhaven	Fimoria	Isangel	Kliften	Silvester	Tewen	F. Kerron
∞	∞	∞	0	∞	∞	∞
∞	5	1		∞	48	9
23	3			∞	41	9
6				∞	41	8

At this point we can already be sure about the shortest route to Solhaven. It takes 6 days and the waypoints are:

Kliften, Isangel, Fimoria, Solhaven