

GREEDY
BEST-FIRST SEARCH
[RICH
&
KNIGHT]

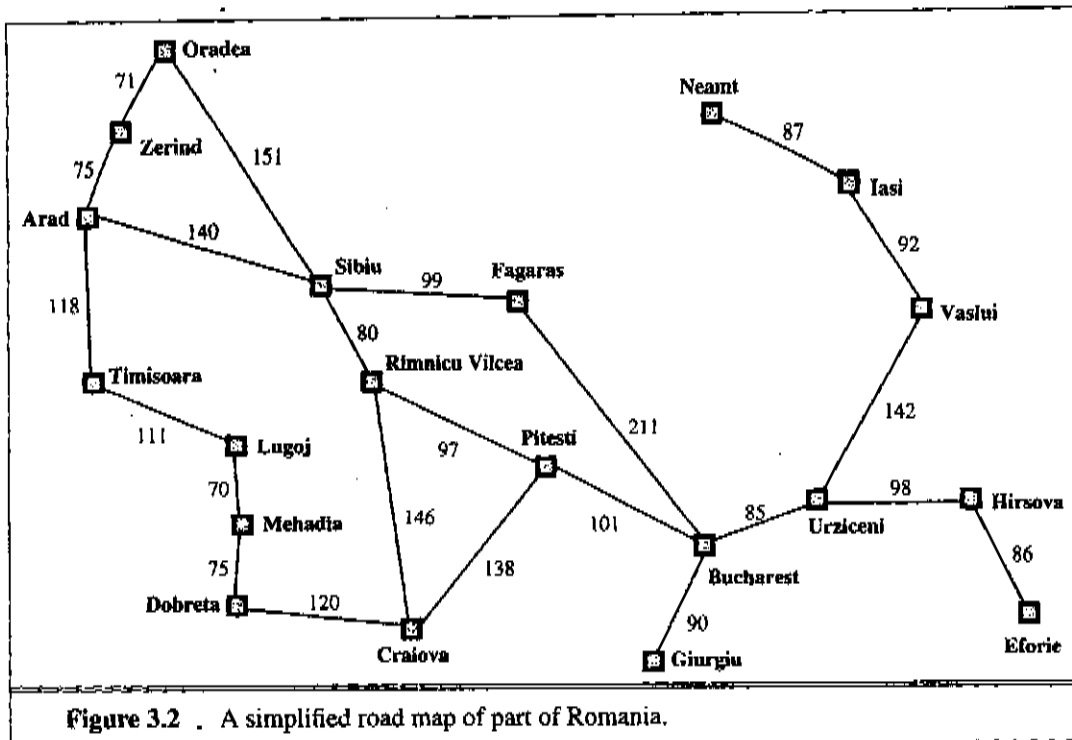
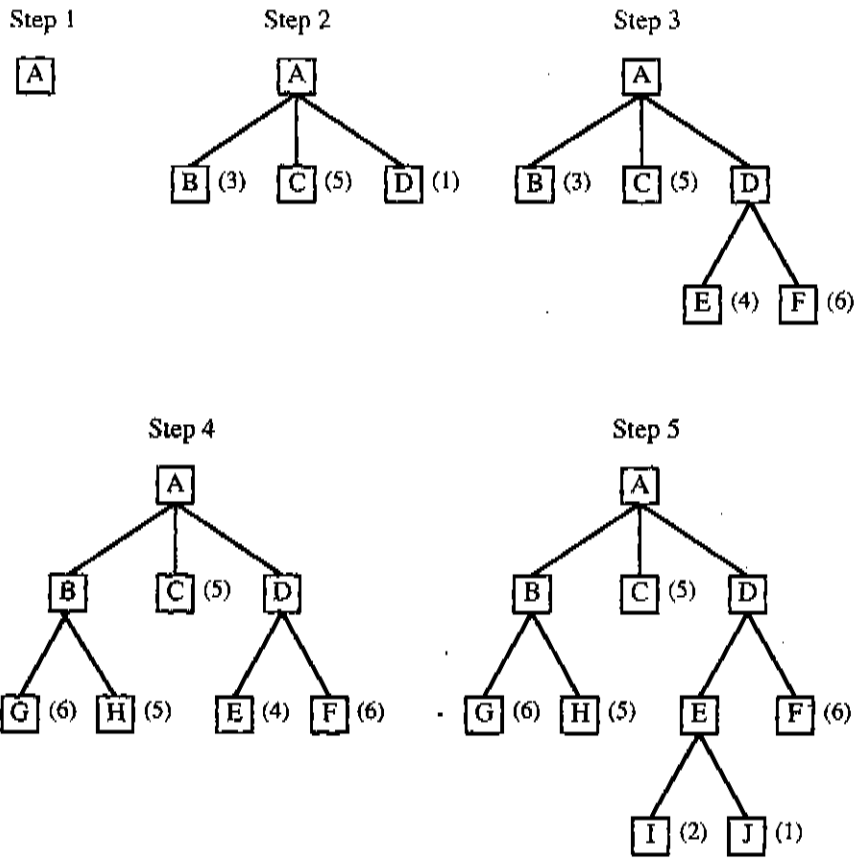


Figure 3.2 . A simplified road map of part of Romania.

RBN <

Arad	366	Mehadia	241
Bucharest	0	Neamt	234
Craiova	160	Oradea	380
Dobreta	242	Pitesti	100
Eforie	161	Rimnicu Vilcea	193
Fagaras	176	Sibiu	253
Giurgiu	77	Timisoara	329
Hirsova	151	Urziceni	80
Iasi	226	Vaslui	199
Lugoj	244	Zerind	374

Figure 4.1 Values of h_{SLD} —straight-line distances to Bucharest.

FOR U.C.S.
(DIJKSTRA'S ALG):

FORWARD_SEARCH

```

1  Q.Insert(xi)
2  while Q not empty do
3    x ← Q.GetFirst()
4    if x ∈ Xg
5      return SUCCESS
6    forall u ∈ U(x)
7      x' ← f(x, u)
8      if x' not visited
9        Mark x' as visited
10     Q.Insert(x')
11   else
12     Resolve duplicate x'
13 return FAILURE
    
```

IF $g(x') > g(x) + l(x,u)$
THEN $\{ g(x') = g(x) + l(x,u)$
 $\pi(x') = x \}$

Figure 2.5: A general template for forward search.

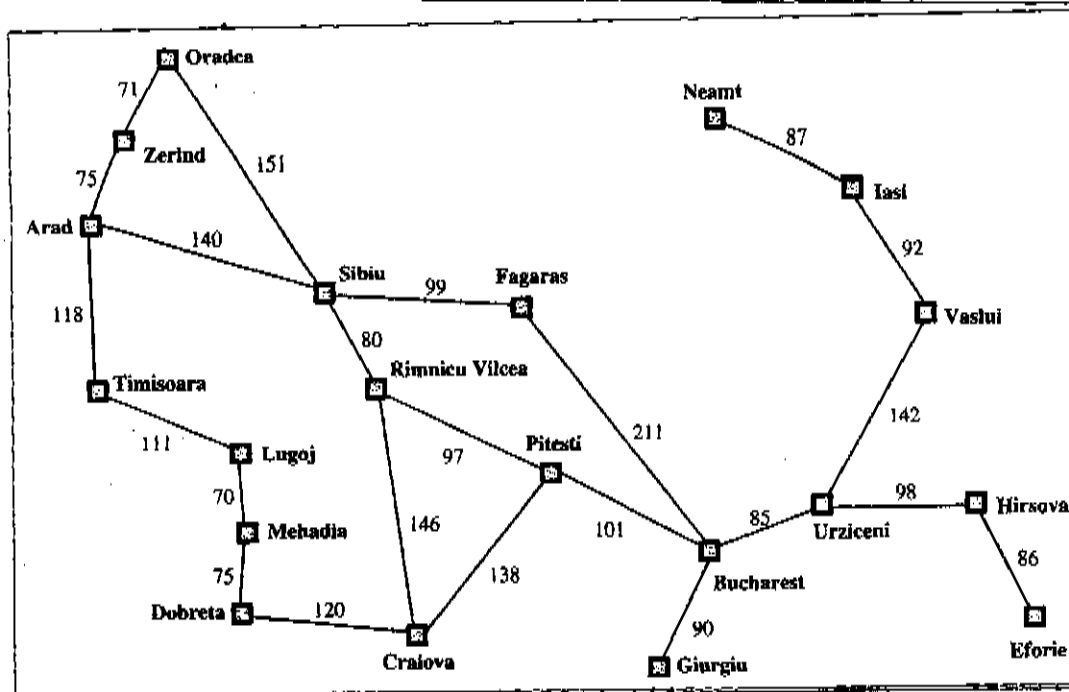


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