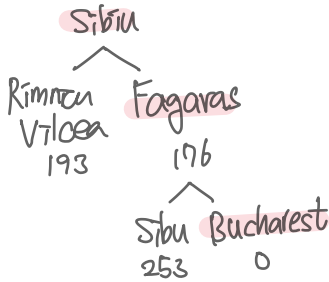


Homework #1.

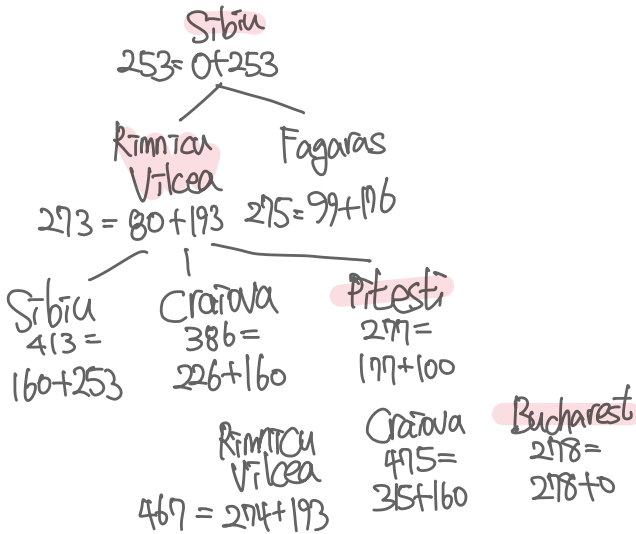
2131450 빅데이터분석융합학 양고연

* 3가지 Search Algorithm (Sibu → Bucharest)

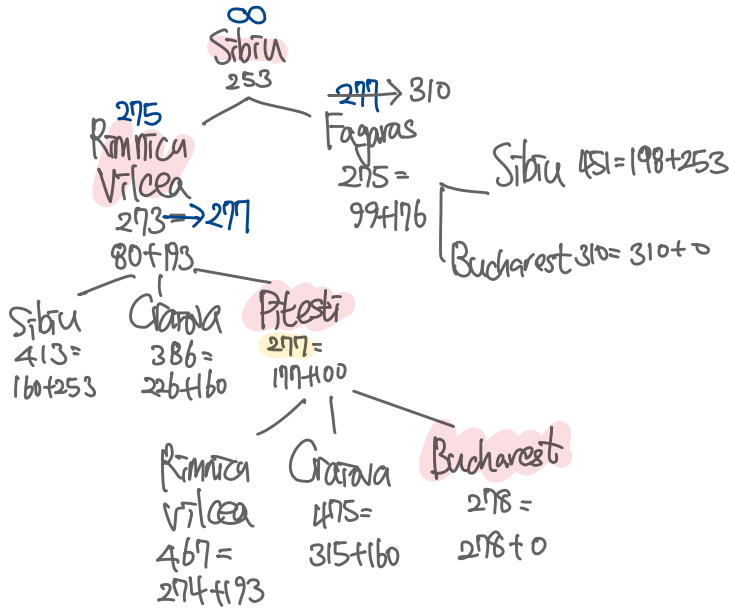
① Greedy Algorithm : Sibiu → Fagaras → Bucharest



② A* Algorithm : Sibiu → Rimnicu Vilcea → Pitesti → Bucharest



③ RBFS Algorithm: Sibiu \rightarrow Rimnicu Vilcea \rightarrow Pitesti \rightarrow Bucharest



- ① Sibiu에서 (253) 출발
- ② Rimnicu Vilcea (273), Fagaras (275)이므로
Rimnicu Vilcea로 이동
- ③ Pitesti (277)가 Fagaras (275)보다 크므로
Fagaras로 이동
- ④ Sibiu (451)와 Bucharest (310)가 Pitesti (277)보다
크므로 Pitesti로 이동
- ⑤ Bucharest (278)의 Cost가 가장 작으며,
도착지이므로 멈춤.

* Genetic Algorithm

85

2 5 3 7 6 8 2 4

25 29.4%

2 1 4 5 5 6 4 3

2 1 4 5 5 6 4 3

22 25.8%

2 5 3 7 6 8 2 4

7 8 2 4 8 3 1 2

17 20.1%

2 1 4 5 5 6 4 3

5 4 3 2 5 1 2 4

21 24.7%

5 4 3 2 5 1 2 4

Initial population



Fitness Function

Selection

2 1 4 7 6 8 2 4

2 1 4 7 6 3 2 4

2 5 3 5 5 6 4 3

2 5 3 5 5 6 4 3

2 1 4 5 5 1 2 4

2 1 8 5 5 1 2 4

5 4 3 2 5 6 4 3

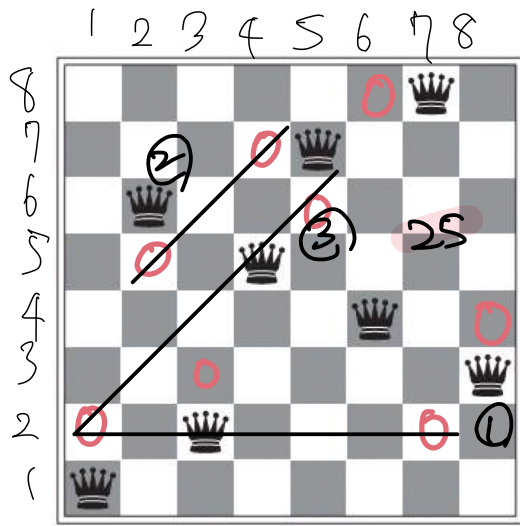
5 4 3 2 5 6 4 7

Crossover

Mutation

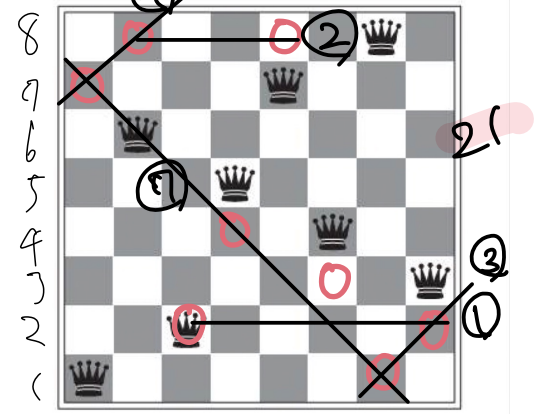
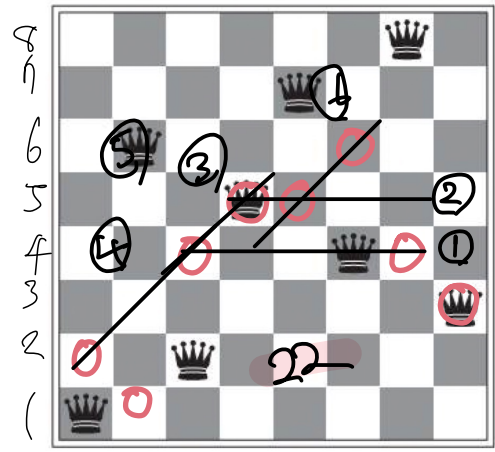
26

2 5 3 7 6 8 2 4



7 8 2 4 8 3 1 2

2 1 4 5 5 6 4 3



5 4 3 2 5 1 2 4

