

Running on input\_3.txt (maze is a 7x7 matrix)

- Uninformed cost search
- Iterative deepening search
- Greedy best first search
- A-star search

```
You are running usc
Expanded nodes : [0, 1, 7, 2, 14, 9, 15, 8, 10, 22, 17, 23, 16, 18, 30, 25,
24, 26, 27, 31, 33, 20, 32, 34, 38, 19, 37, 39, 41]
Path : [0, 1, 2, 9, 10, 17, 18, 25, 26, 27, 34, 41]
Cost : 11
Time run : 0.0009963512420654297
You are running idfs
Expanded nodes : [0, 7, 14, 15, 22, 23, 30, 16, 17, 18, 25, 26, 33, 32, 39,
46, 47, 40, 41]
Path : [0, 7, 14, 15, 22, 23, 16, 17, 18, 25, 26, 33, 32, 39, 46, 47, 40, 41
]
Cost : 17
Time run : 0.0030591487884521484
You are running gbfs
Expanded nodes : [0, 1, 2, 9, 10, 17, 18, 25, 26, 27, 34, 41]
Path : [0, 1, 2, 9, 10, 17, 18, 25, 26, 27, 34, 41]
Cost : 11
Time run : 0.0
You are running a_star
Expanded nodes : [0, 1, 2, 7, 9, 10, 14, 15, 17, 18, 22, 23, 25, 26, 27, 30,
33, 34, 41]
Path : [0, 1, 2, 9, 10, 17, 18, 25, 26, 27, 34, 41]
Cost : 11
Time run : 0.000965118408203125
□
```

Running on input.txt (8x8 maze)

- Uninformed cost search
- Iterative deepening search
- Greedy best first search
- A-star search

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You are running usc
Expanded nodes : [0, 1, 8, 2, 9, 16, 10, 17, 24, 18, 25, 19, 26, 11, 20, 27, 3, 28, 35, 4, 29,
34, 36, 5, 30, 33, 37, 6, 31, 32, 23, 40, 15, 48, 7, 14, 56, 13, 57, 12, 21, 58, 22, 59, 51, 60,
, 43, 42, 44, 41, 45, 50, 46, 49, 53, 38, 52, 61]
Path : [0, 8, 16, 24, 25, 26, 27, 35, 34, 33, 32, 40, 48, 56, 57, 58, 59, 51, 43, 44, 45, 53, 6
1]
Cost : 22
Time run : 0.0009970664978027344
You are running idfs
Expanded nodes : [0, 8, 16, 24, 25, 26, 27, 35, 36, 37, 34, 33, 32, 40, 48, 56, 57, 58, 59, 60,
51, 43, 44, 45, 53, 61]
Path : [0, 8, 16, 24, 25, 26, 27, 35, 34, 33, 32, 40, 48, 56, 57, 58, 59, 51, 43, 44, 45, 53, 6
1]
Cost : 22
Time run : 0.004984378814697266
You are running gbfs
Expanded nodes : [0, 1, 2, 10, 18, 19, 20, 28, 29, 30, 31, 23, 11, 15, 14, 13, 21, 22, 12, 3, 4
, 5, 6, 7, 8, 9, 16, 17, 24, 25, 26, 27, 35, 36, 37, 34, 33, 32, 40, 48, 56, 57, 58, 59, 60, 51
, 43, 44, 45, 53, 61]
Path : [0, 8, 16, 24, 25, 26, 27, 35, 34, 33, 32, 40, 48, 56, 57, 58, 59, 51, 43, 44, 45, 53, 6
1]
Cost : 22
Time run : 0.0
You are running a_star
Expanded nodes : [0, 1, 2, 8, 9, 10, 16, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 35, 36, 37, 11
, 30, 34, 3, 4, 5, 31, 33, 6, 23, 32, 40, 48, 56, 57, 58, 59, 60, 15, 14, 13, 21, 51, 7, 12, 22
, 43, 44, 45, 53, 61]
Path : [0, 8, 16, 24, 25, 26, 27, 35, 34, 33, 32, 40, 48, 56, 57, 58, 59, 51, 43, 44, 45, 53, 6
1]
Cost : 22
Time run : 0.0
```

Running on input\_2.txt (6x6 maze)

- Uninformed cost search
- Iterative deepening search
- Greedy best first search
- A-star search

```
You are running usc
Expanded nodes : [0, 6, 7, 12, 1, 8, 13, 2, 14, 19, 3, 15, 20, 25, 16, 24, 26, 18, 22, 27, 30, 32, 21, 28, 31, 33]
Path : [0, 6, 12, 13, 19, 25, 26, 27, 33]
Cost : 8
Time run : 0.0010461807250976562
You are running idfs
Expanded nodes : [0, 6, 12, 13, 19, 25, 26, 32, 31, 30, 24, 18, 27, 33]
Path : [0, 6, 12, 13, 19, 25, 26, 27, 33]
Cost : 8
Time run : 0.0011594295501708984
You are running gbfs
Expanded nodes : [0, 6, 7, 8, 14, 15, 20, 16, 22, 28, 27, 33]
Path : [0, 6, 7, 8, 14, 15, 16, 22, 28, 27, 33]
Cost : 10
Time run : 0.0
You are running a_star
Expanded nodes : [0, 6, 7, 8, 12, 13, 14, 15, 19, 20, 25, 26, 27, 32, 33]
Path : [0, 6, 12, 13, 19, 25, 26, 27, 33]
Cost : 8
Time run : 0.0
□
```