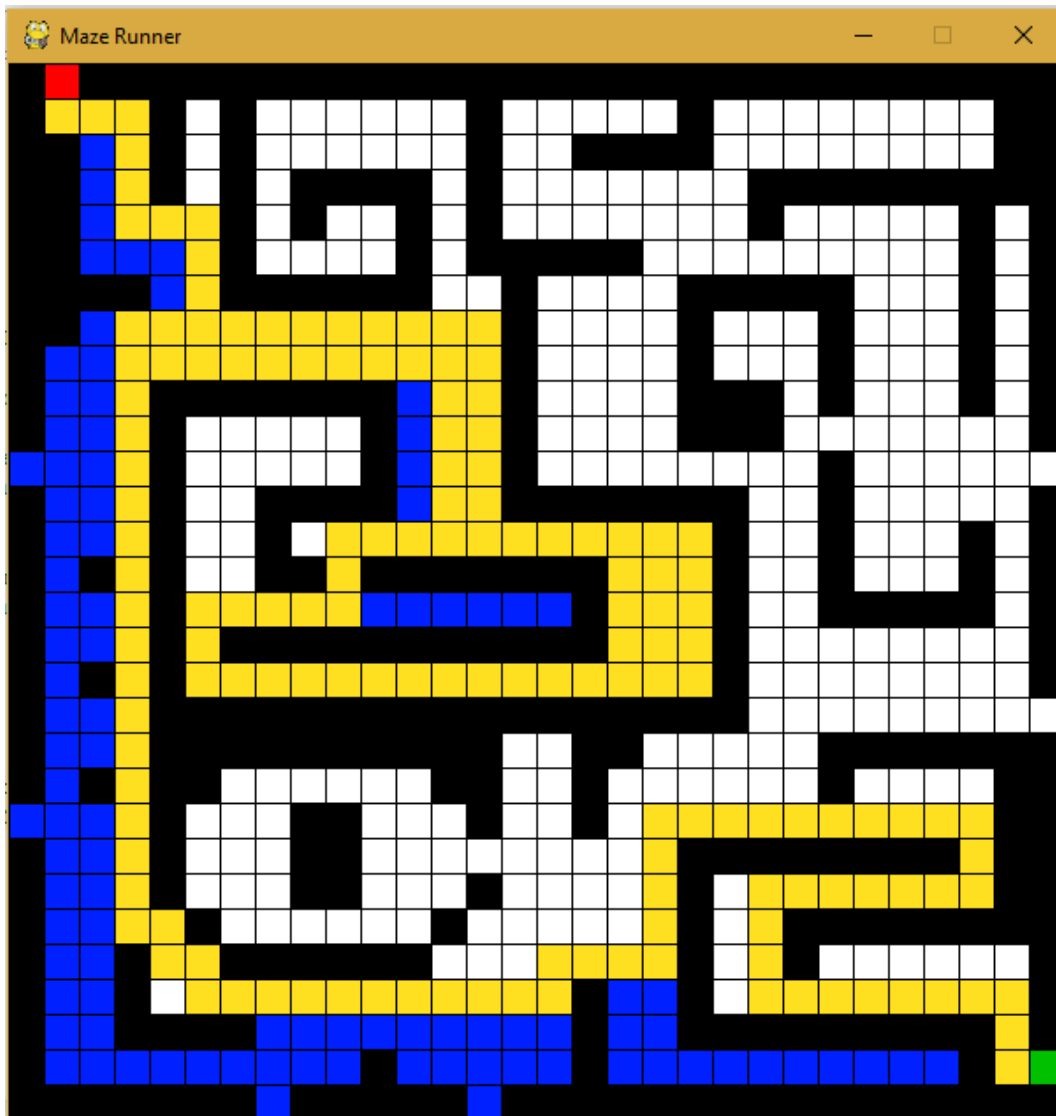


DFS:



The sequence of actions for the solution is:

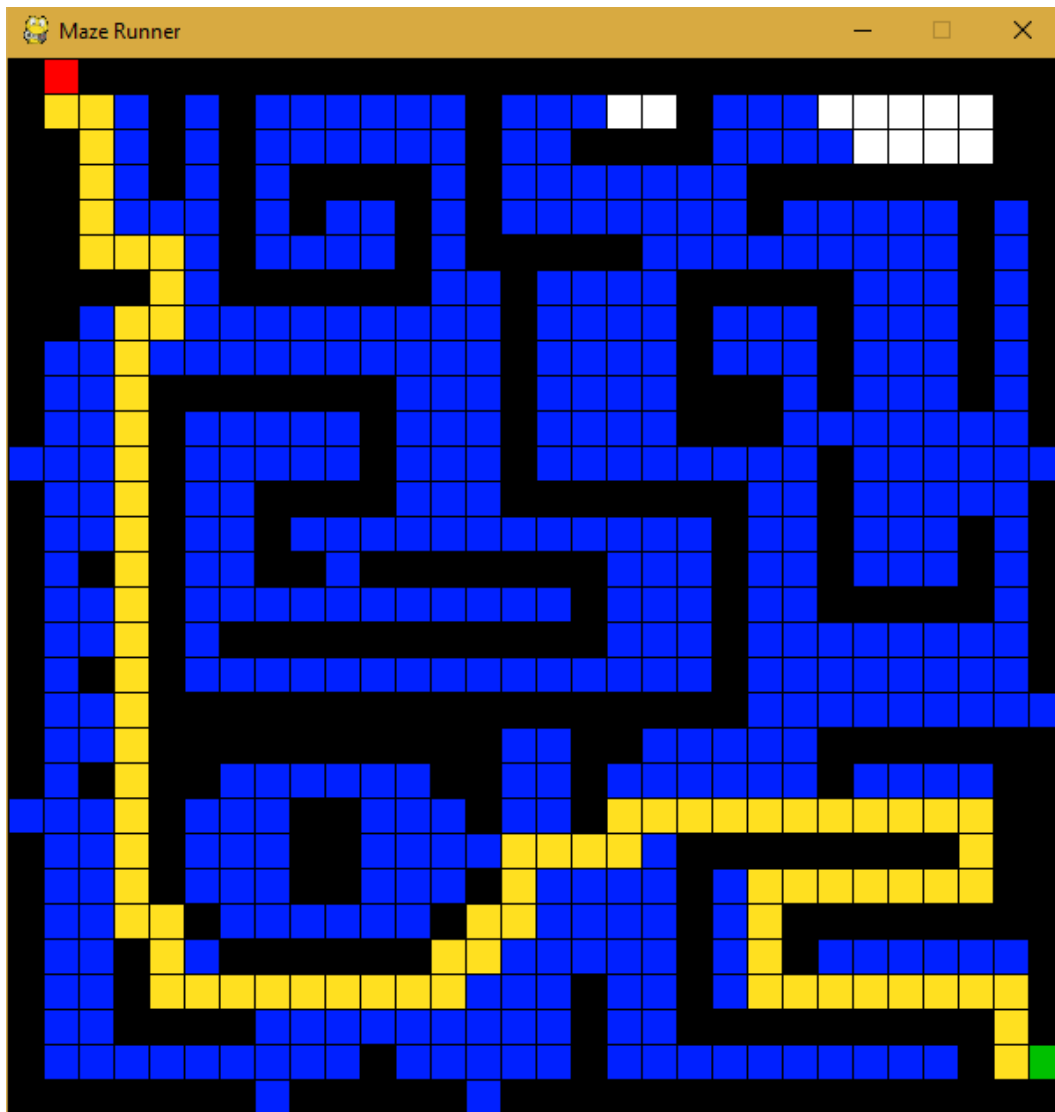
'S', 'E', 'E', 'S', 'S', 'S', 'E', 'E', 'S', 'S', 'S', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'S', 'S', 'S', 'S',
'S', 'S', 'E', 'E', 'E', 'E', 'E', 'E', 'S', 'S', 'S', 'S', 'W', 'N', 'N', 'N', 'W', 'S', 'S', 'S', 'W', 'W',
'W', 'W', 'W', 'W', 'W', 'W', 'W', 'W', 'W', 'W', 'N', 'N', 'E', 'E', 'E', 'E', 'N', 'N', 'E', 'E', 'E',
'N', 'N', 'N', 'N', 'N', 'W', 'W', 'W', 'W', 'W', 'W', 'W', 'W', 'N', 'W', 'S', 'S', 'S', 'S', 'S', 'S',
'S', 'S', 'S', 'S', 'S', 'S', 'S', 'S', 'S', 'S', 'E', 'S', 'E', 'S', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'E',
'E', 'E', 'N', 'E', 'E', 'E', 'N', 'N', 'N', 'N', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'S', 'S', 'W', 'W',
'W', 'W', 'W', 'W', 'S', 'S', 'S', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'S', 'S', 'E'

The amount of explored states is: 247

The cost of the path is: 1591

The elapse time until a solution was found, is: 0.149 s

BFS:



The sequence of actions for the solution is:

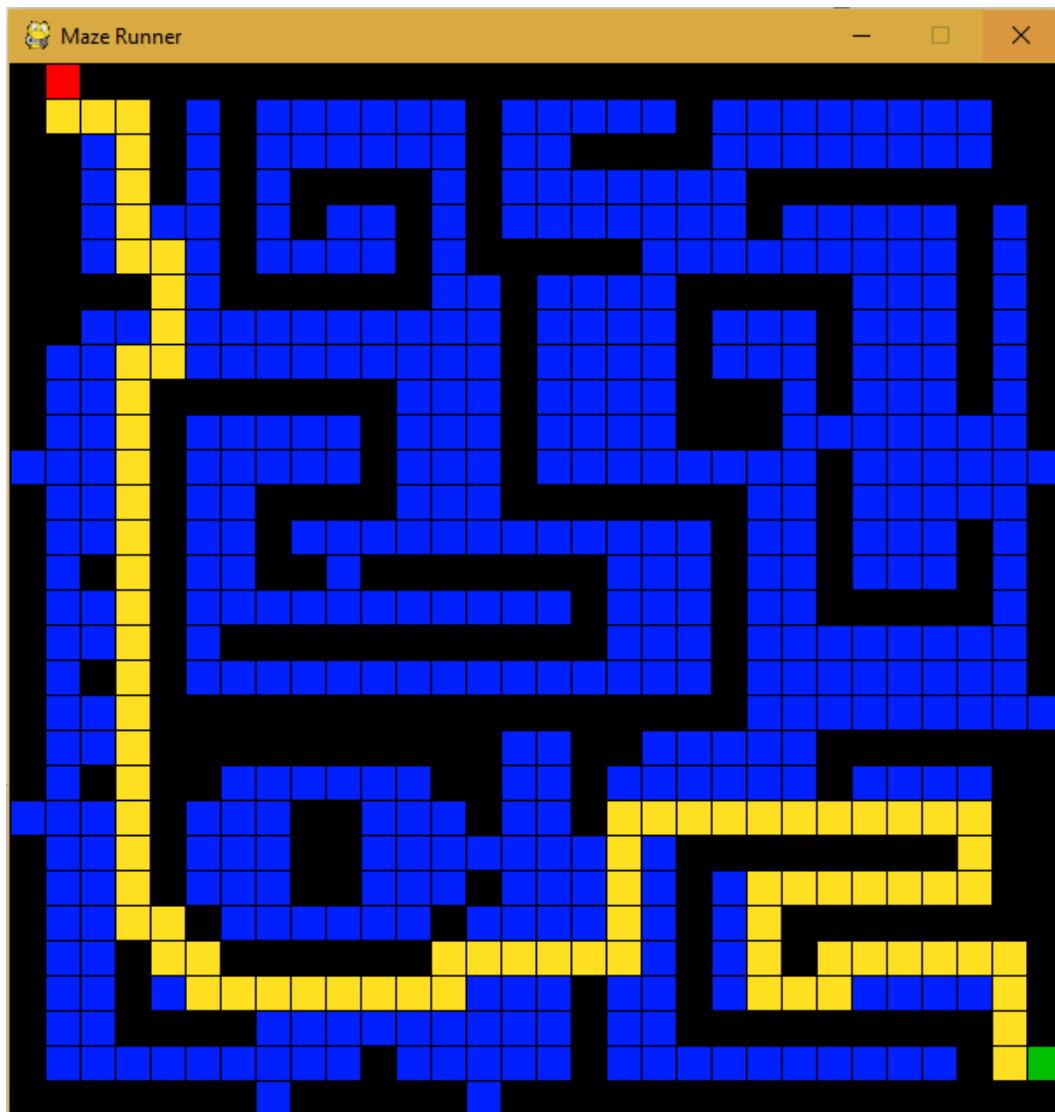
'S', 'E', 'S', 'S', 'S', 'S', 'E', 'E', 'S', 'S', 'W', 'S', 'S', 'S', 'S', 'S', 'S', 'S', 'S', 'S', 'S',
'S', 'S', 'S', 'S', 'S', 'E', 'S', 'S', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'N', 'E', 'N', 'E', 'N', 'N', 'E',
'E', 'E', 'N', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'S', 'S', 'W', 'W', 'W', 'W', 'W', 'W', 'S',
'S', 'S', 'E', 'E', 'E', 'E', 'E', 'E', 'S', 'S', 'E'

The amount of explored states is: 525

The cost of the path is: 832

The elapse time until a solution was found, is: 0.308 s

UCS:



The sequence of actions for the solution is:

'S', 'E', 'E', 'S', 'S', 'S', 'S', 'E', 'S', 'S', 'S', 'W', 'S', 'S', 'S', 'S', 'S', 'S', 'S', 'S', 'S',
'S', 'S', 'S', 'S', 'S', 'E', 'S', 'E', 'S', 'E', 'E', 'E', 'E', 'E', 'E', 'N', 'E', 'E', 'E', 'E', 'E', 'N',
'N', 'N', 'N', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'E', 'S', 'S', 'W', 'W', 'W', 'W', 'W', 'W', 'S',
'S', 'S', 'E', 'E', 'N', 'E', 'E', 'E', 'E', 'E', 'S', 'S', 'S', 'E'

The amount of explored states is: 536

The cost of the path is: 782

The elapse time until a solution was found, is: 0.374 s

Comparison:

	DFS	BFS	UCS
Explored States	247	525	536
Cost Path	1591	832	782
Elapse Time (s)	0.149	0.308	0.374

In our opinion the best algorithm is the BFS algorithm, because it can find an excellent path, with a great time. In comparison with the DFS algorithm de BFS takes the double the time but finds a path 48% cheaper. On the other hand, the UCS algorithm can find a path 50% cheaper than DFS which is not that far from BFS, but it takes 28% longer than BFS or 150% longer than DFS. Thus, considering time and cost, we think, an equilibrated algorithm as BFS is better.