Implementation of ANA* in Python

Submitted as Motion Planning Assignment
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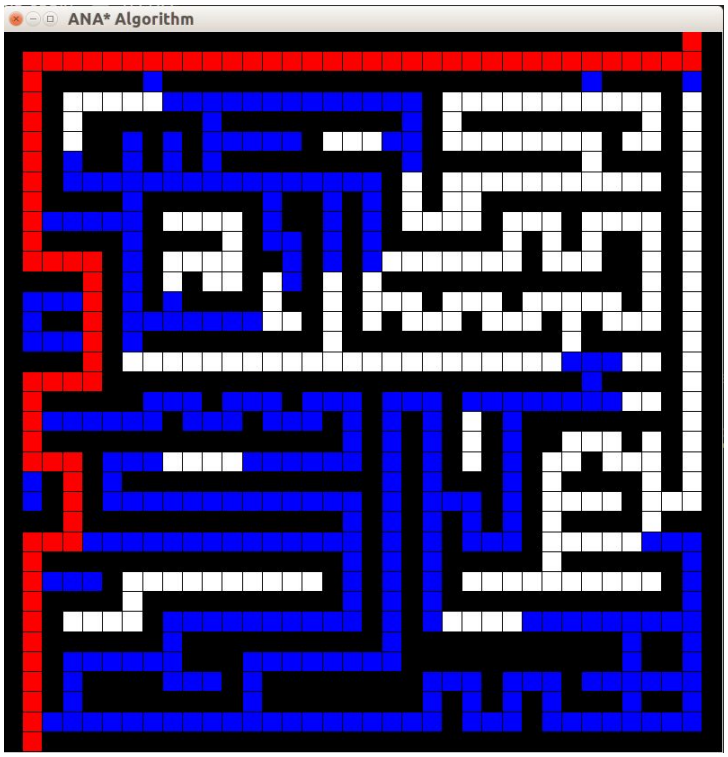
Goal: Develop ANA* algorithm in python (using pre-built Visualization methods)

Readme.txt file is provided and it contains the procedure to run the code



Results in different cases:

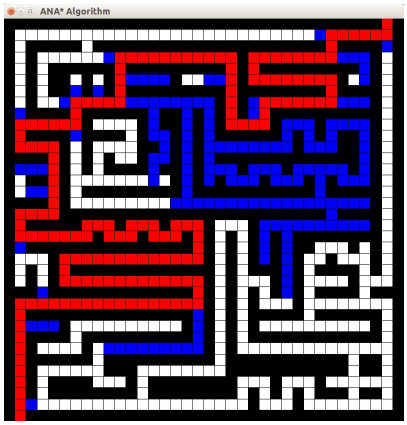
2.) Easy.txt

50000 33 29

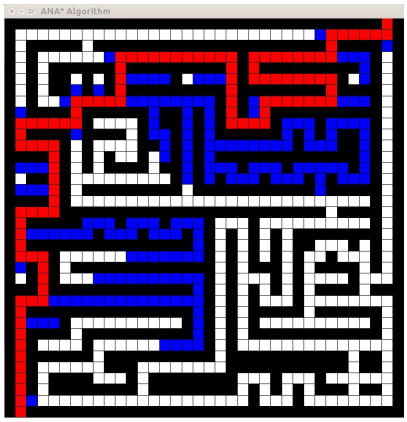
Time/cost analysis
For Easy.txt

Time taken/epoch	Dijkstra's	A*	ANA*
1	0.0072 - 29	0.011 - 29	0.010 - 50000
2	NA	NA	0.008 - 33
3	NA	NA	0.005 - 29
4	NA	NA	0.006 - 29

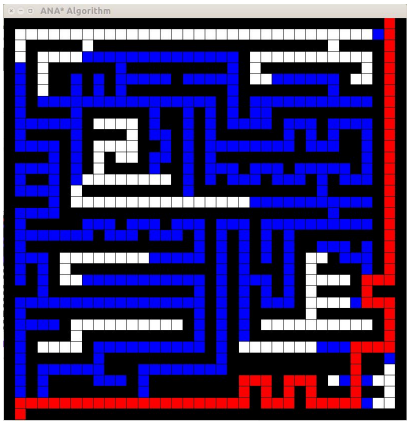
1.) Hard.txt



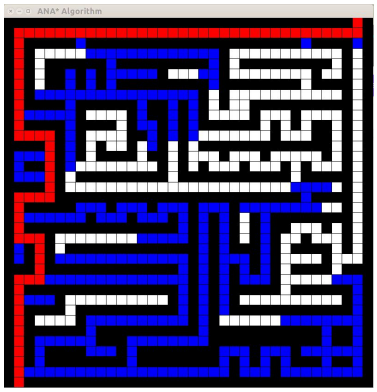
50000



161



103



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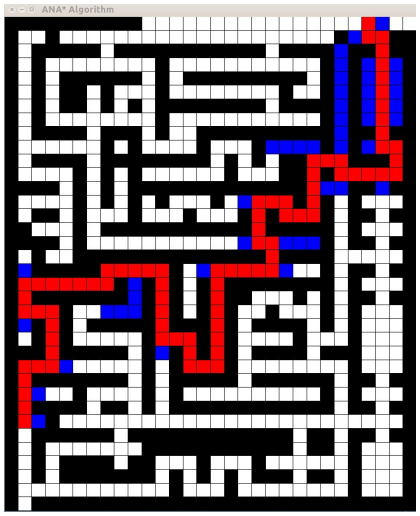
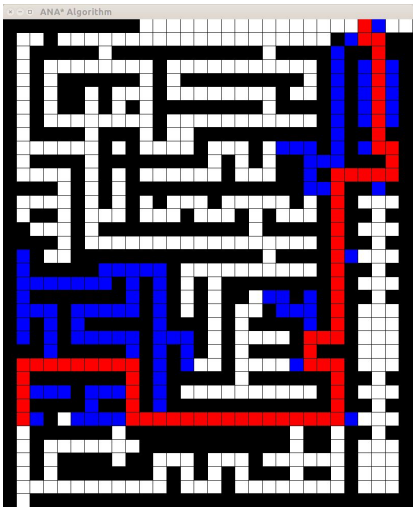
Time/Cost analysis
For Hard.txt

Time taken/epoch	Dijkstra's	A*	ANA*
1	0.032 -79	0.026 - 79	0.0335 - 50000
2	NA	NA	0.0199 - 161
3	NA	NA	0.0282 - 103
4	NA	NA	0.0279 - 79
5	NA	NA	0.0330 - 79

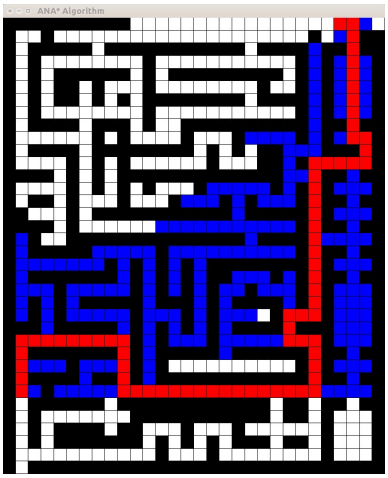
3.) Custom.txt



50000



81



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Time/Cost Analysis

Time taken/epoch	Dijkstra's	A*	ANA*
1	0.022 - 69	0.026 -69	0.0162 - 81
2	NA	NA	0.0159 - 69
3	NA	NA	0.0203 - 69
4	NA	NA	0.0270 - 69