TIME AND MEMORY REQUIRED BY SYSTEM FOR LION-TALE GAME

		RANDOM BOARD		FIXED BOARD WITH NO WALL	
	Test No.	Time (in sec)	Memory (in KB)	Time (in sec) (fixed board with no wall always take same time)	Memory(in KB)
DFS	1	6.9428436756134	44968	3.18936252593994	47728
	2	4.42057132720947	44384		
	3	3.19726252555847	44260		
BFS	1	13.4802579879761	46332	17.6481344699806	47296
	2	12.5370779037476	45588		
	3	12.6980319023132	46148		
VCS	1	13.5728898048401	47832	17.4427356719971	47428
	2	12.5370779037476	45988		
	3	10.9225881099701	45368		
A*	1	9.00761485099793	45428	17.4390847682953	47472
	2	11.2971918582916	45936		
	3	12.022677898407	46252		

Note:- The time calculated along with 0.1 sec delay

Note:- The memory is heavely dependend on the libraries. Here, memory calculated by importing os, psutil package

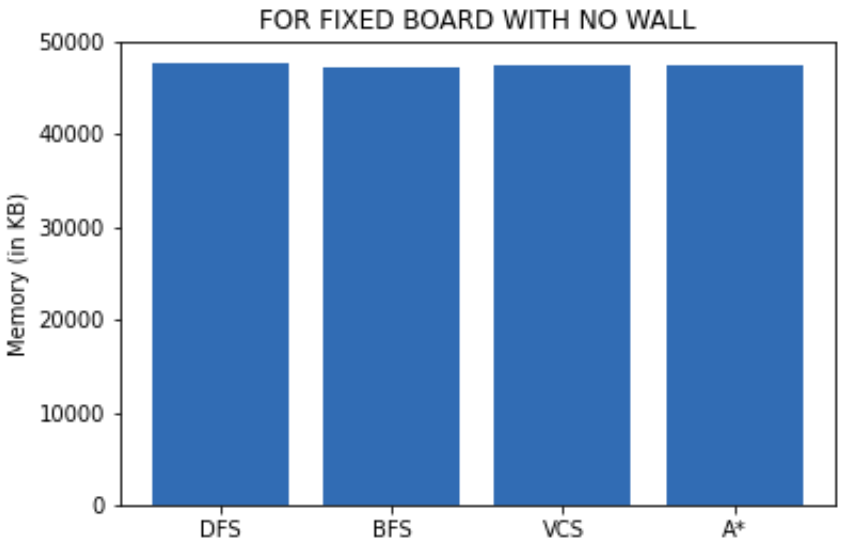
Note:- A* algorithm taking more time as per the path cost of 3 (down move) & 2 (other move)

Note:- DFS used have priority order of down, right, left, up expansion first.

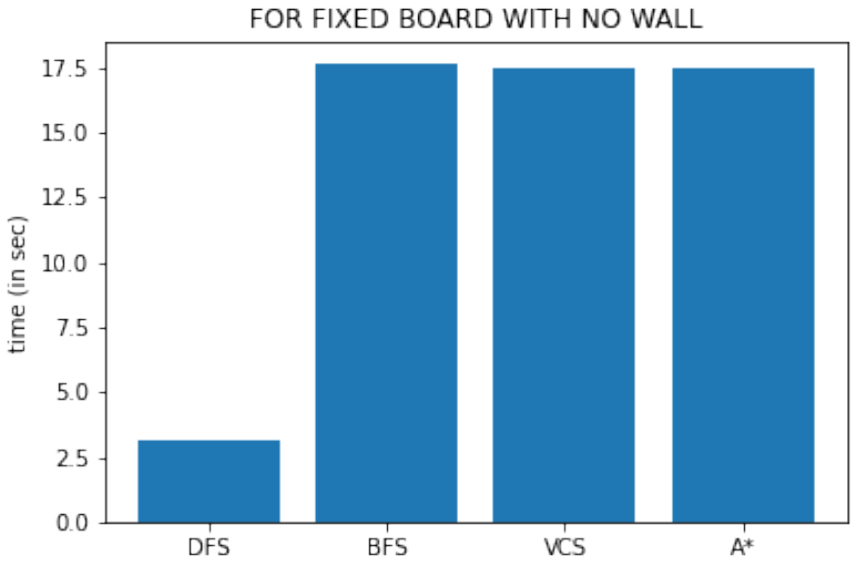
System Specification:- Processor: Intel i3 8th Gen @2.30GHz, RAM-4GB DDR4

COMPARISON (TESTED FOR FIXED BOARD WITH NO WALLS):-

Memory relation:-



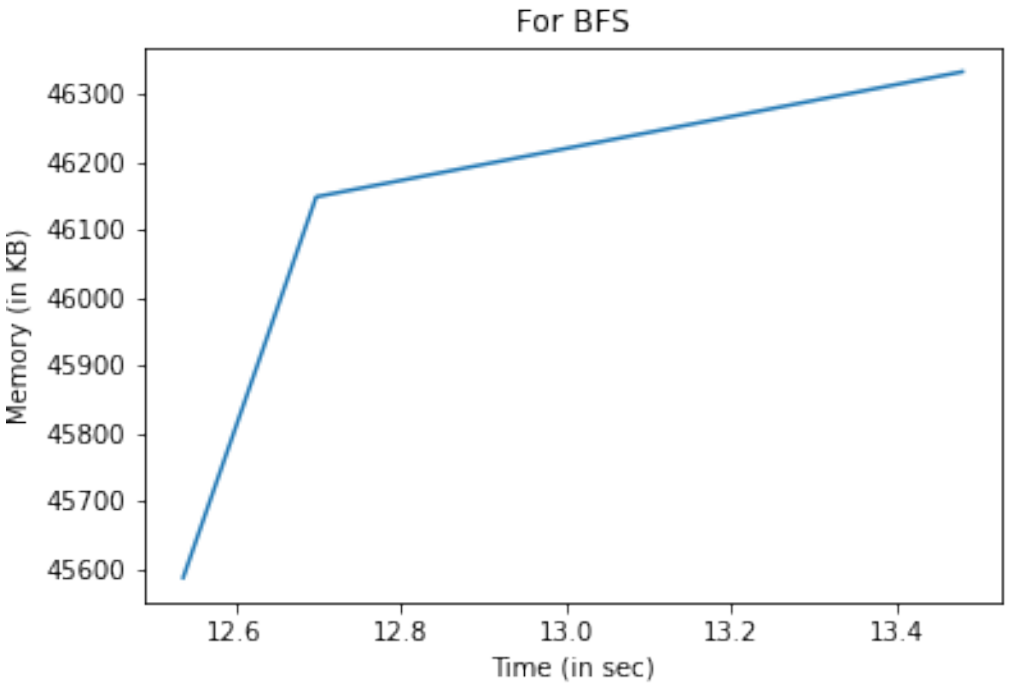
Time Relation:-



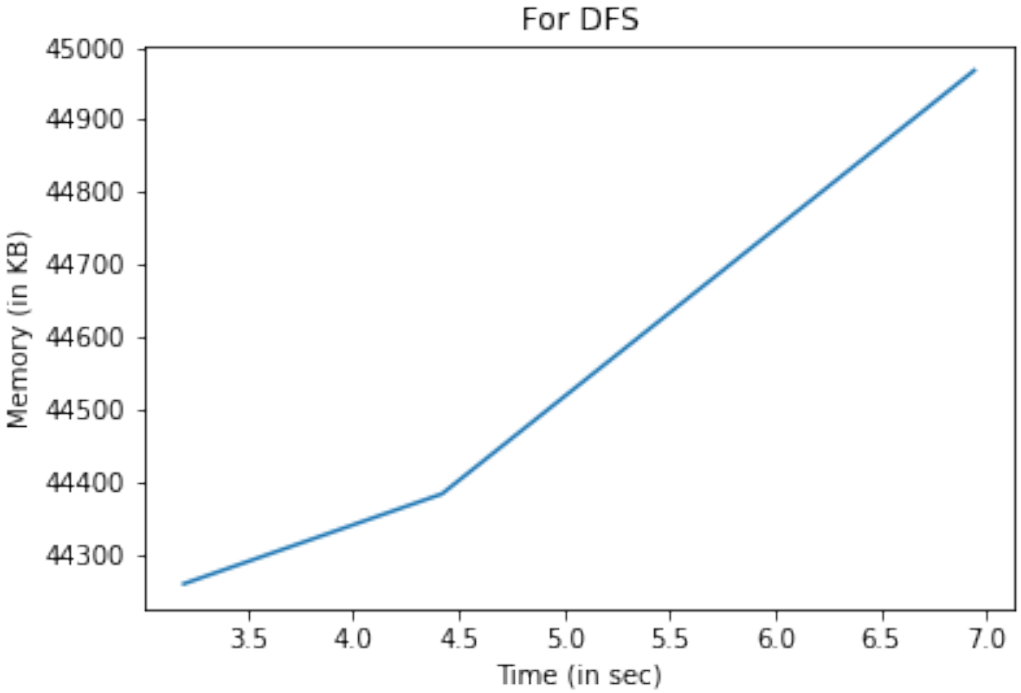
A* is expected to run better, but for the given problem, where downward cost is 3 and other as 2 will lead A* algorithm to search the minimum value (total path cost+heuristic) to expand the nodes in other directions also because path cost and heuristic are neutralizing each other, so some opposite direction nodes will also be explored.

RANDOM BOAR (FOR RANDOM 3 RUN):-

Time Vs Memory graph for BFS:-

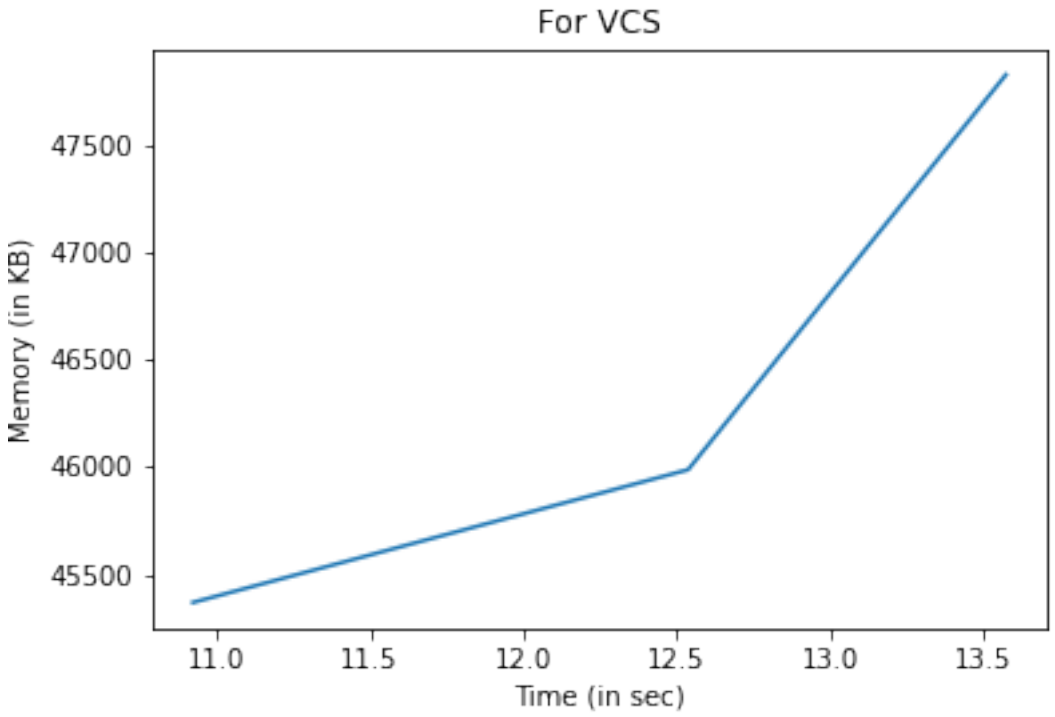


Time Vs Memory graph for DFS:-

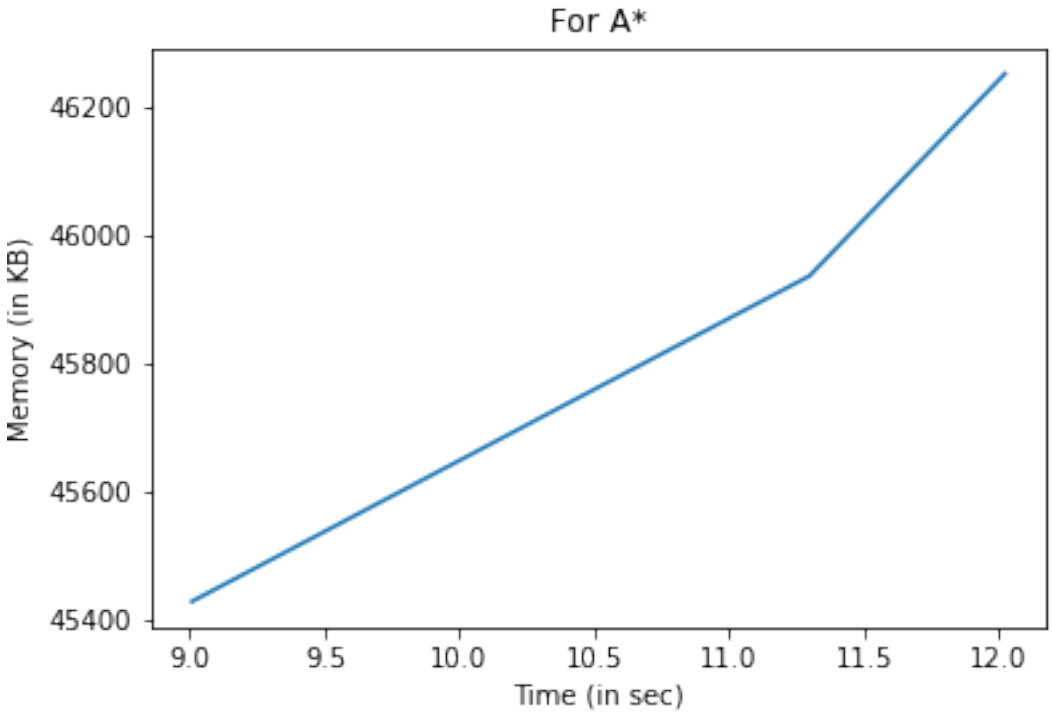


Here, DFS is running in the setting where priority order of the expansion is down, right, left and up.

Time Vs Memory graph for VCS:-



Time Vs Memory graph for A*:-



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