

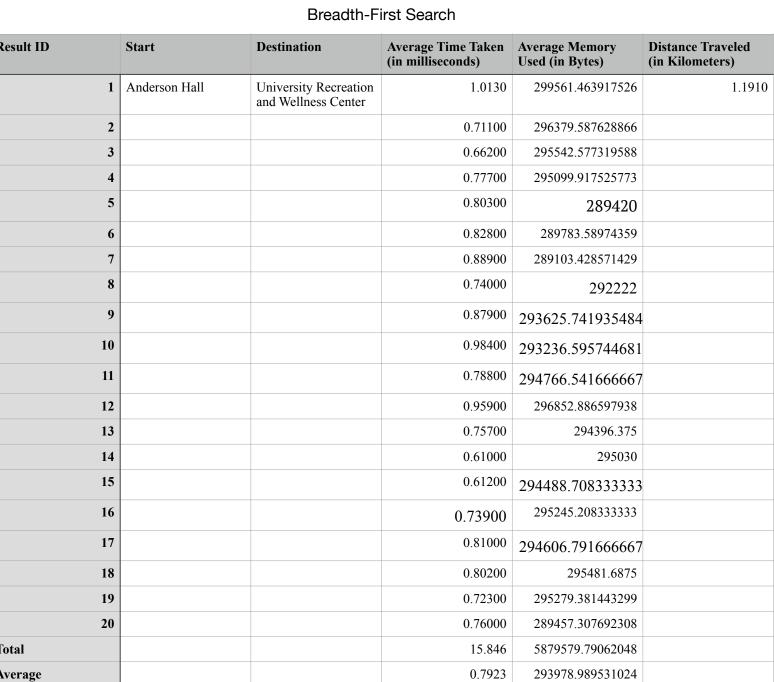
A* w Manhattan-1								
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)			
	1 Eddy Hall	Frontier Hall	1.5950	1038476.57471264	1.6195			
	2		1.7670	1017042.63636364				
	3		1.7950	1014382.59770115				
	4		1.9050	1016036.68965517				
	5		1.8950	1013138.25287356				
	6		1.8000	990929				
	7		1.8410	1002767.2244898				
	8		1.7540	1013906.66666667				
	9		1.5710	1014457.47126437				
1	0		1.8410	1014579.72413793				
1	1		1.8110	1014620.96551724				
1	2		1.9960	976055.761904762				
1	3		1.8430	977094.137931034				
1	4		1.8590	976359.754385965				
1	5		1.8890	1015662.58227848				
1	6		1.7140	1015586.70454545				
1	7		1.8160	1014639.72727273				
1	8		1.7870	1014796.25				
1	9		1.8640	1014107.31818182				
2	0		1.7800	1013623.88505747				
Total			36.1230	20168263.9249399				
Average			1.8062	1008413.196247				

Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)
	Walter Library (main door)	Boynton Health Service	1.8410	859520.15625	0.50063
	2		1.9260	995650.409090909	
:	3		1.9700	958220.765957447	
	4		1.4770	1014456.90666667	
:	5		1.6670	1015196.38636364	
	6		1.6210	1014344.45977012	
,	7		1.8160	1015179.27272727	
	8		1.6310	1014463.54545455	
	)		1.7210	1015529.72413793	
1	0		1.6450	1015625.31818182	
1	1		1.6070	1014975.25	
1	2		1.8590	1015871.79310345	
1.	3		1.5350	1015566.70454545	
1	4		1.5680	1015762.84090909	
1	5		1.5950	1014052.22988506	
1	6		1.7530	1017229.95402299	
1	7		1.9220	813248.666666667	
1	8		1.8160	1014970.025	
1			1.5080	1016784.31818182	
2	)		1.5000	1016292.04597701	
Total			33.9780	19872940.7728919	
Average			1.6989	993647.038644595	

Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)
	1 Anderson Hall	University Recreation and Wellness Center	1.3200	661613.891304348	1.1913
	2		1.2160	625172.328767123	
	3		1.2450	583455.205882353	
	4		1.1250	583628.835820896	
	5		1.1600	582120.486486487	
	6		1.3260	587750.25	
	7		1.1150	590347.849462366	
	8		1.2220	590800.521739131	
	9		1.0790	590964.408602151	
1	0		1.1950	591458.258064516	
1	1		0.99600	589866.086956522	
1	2		1.1150	592012.23655914	
1	3		0.89000	591106.322580645	
1	4		0.87700	591031.741935484	
1	5		1.2760	589473.010752688	
1	6		1.1710	589899.913043478	
1	7		0.88100	587350.635294118	
1	8		0.93400	590425.032258065	
1	9		1.0530	591364.623655914	
2	0		1.1340	591277.97826087	
Total			22.3300	11891119.6174263	
Average			1.1165	594555.980871315	

erage			1.1165	594555.980871315	
		A* w	Haversine-1		
esult ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)
	1 Eddy Hall	Frontier Hall	2.0870	1054962.82758621	1.6195
	2		1.8430	965867.590909091	
	3		2.0620	995626.102564103	
	4		2.0230	999049.794871795	
	5		2.0740	1014798.18666667	
	6		1.8260	1014052.97727273	
	7		2.2710	967120.052631579	
	8		1.8390	898485.170731707	
	9		2.0010	1015473.78666667	
:	10		1.6210	1015305.6091954	
	11		1.6800	1013822.48275862	
	12		1.8840	1015129.01149425	
	13		2.0730	1015493.49425287	
	14		1.8610	1008177	
	15		1.9390	986469.942857143	
:	16		1.9240	992438.77777778	
	17		1.6660	1015145.49333333	
	18		1.8510	1013707.84090909	
	19		1.7000	1012140.4137931	
	20		1.9930	1014062.71264368	
tal			38.2180	20027329.2689158	
erage			1.9109	1001366.46344579	

Average			1.9109	1001366.46344579	
		A* w F	laversine-2		
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)
1	Walter Library (main door)	Boynton Health Service	1.9730	1058496.52873563	0.50063
2			2.0100	1024688.09195402	
3			2.8090	791207.418181818	
4			1.9540	1025506.52941176	
5			1.8170	1021598.48192771	
6			1.7490	1021693.40909091	
7			1.8310	1020266.75	
8			1.7610	1021987.36363636	
9			1.7170	1021537.54545455	
10			1.8390	1020416.56818182	
11			1.6800	1023330.31818182	
12			1.7730	1018789.5	
13			1.8840	1021155.05747126	
14			1.9110	1018972.5	
15			2.0080	1020271.37931034	
16			1.8410	1020552.22988506	
17			1.9120	1021787.05747126	
18			1.7560	1021662.20454545	
19			1.8880	1023336.5	
20			1.7920	1019970	
Total			37.9050	20237225.4334398	
Average			1.8953	1011861.27167199	



Average			0.7923	293978.989531024	
	·	Breadth	-First Search-1		
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)
	1 Eddy Hall	Frontier Hall	1.4950	567465.52688172	1.6189
	2		2.1280	531333.111111111	
	3		1.6230	532197.333333333	
	4		1.4060	535103.170212766	
	5		1.5210	533770.106382979	
	6		1.3250	535358.765957447	
	7		1.4310	533161.139784946	
	8		1.5620	534079.784946237	
	9		1.4560	534082.276595745	
	10		1.2240	533646.936170213	
	11		1.5760	536406.765957447	
	12		1.5940	533278.063829787	
	13		1.4320	536341.659574468	
	14		1.4240	536511.893617021	
	15		1.3880	532226.322580645	
	16		1.4860	532052.957446809	
	17		1.3720	535180.808510638	
	18		1.4470	534580.150537634	
	19		1.4410	533438.752688172	
	20		1.1980	532565.70212766	
Total			29.5290	10712781.2282468	
Average			1.4765	535639.06141234	

Breadth-First Search-2								
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)			
1	Walter Library (main door)	Boynton Health Service	1.4950	590547.804347826	0.50063			
2			1.9710	567618.894736842				
3			1.4150	567947.772727273				
4			1.3650	569808.709677419				
5			1.3020	570655.870967742				
6			1.3570	569017.290322581				
7			1.2390	570724.15053763				
8			1.2730	570779.569892473				
9			1.2940	573217.204301075				
10			1.3400	570032.23655914				
11			1.3960	570190.193548387				
12			1.3460	573305.225806452				
13			1.0750	570117.806451613				
14			1.4820	571227.032258065				
15			1.2820	569360.387096774				
16			1.3020	571791.52688172				
17			1.4850	548804.485714286				
18			1.5580	558699.076923077				
19			1.2930	567465.139534884				
20			1.5270	570787.247311828				
Total			27.7970	11392097.6255971				
Average			1.3899	569604.881279855				

	Bidirectional Search								
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)				
	1 Anderson Hall	University Recreation and Wellness Center	0.57400	85817.7373737374	1.19				
	2		0.53800	84793.0612244898					
	3		0.53200	74936.6451612903					
	4		0.52700	75158.347826087					
	5		0.52000	74995.717171717					
	6		0.31800	75250.7234042553					
	7		0.31500	74933.0752688172					
	8		0.32400	74895					
	9		0.40800	75149.8105263158					
1	0		0.33400	75033.4468085106					
1	1		0.51200	75122.8041237113					
1	2		0.53000	74940.2105263158					
1	3		0.46600	75305.875					
1	4		0.55900	74967.1304347826					
1	5		0.50100	75119.9130434783					
1	6		0.54200	75218.5306122449					
1	7		0.36700	74970.5979381443					
1	8		0.32600	75176.5773195876					
1	9		0.33500	75096.9462365592					
2	0		0.44400	74917.0416666667					
Total			8.97200	1521799.19166671					
Average			0.44860	76089.9595833355					

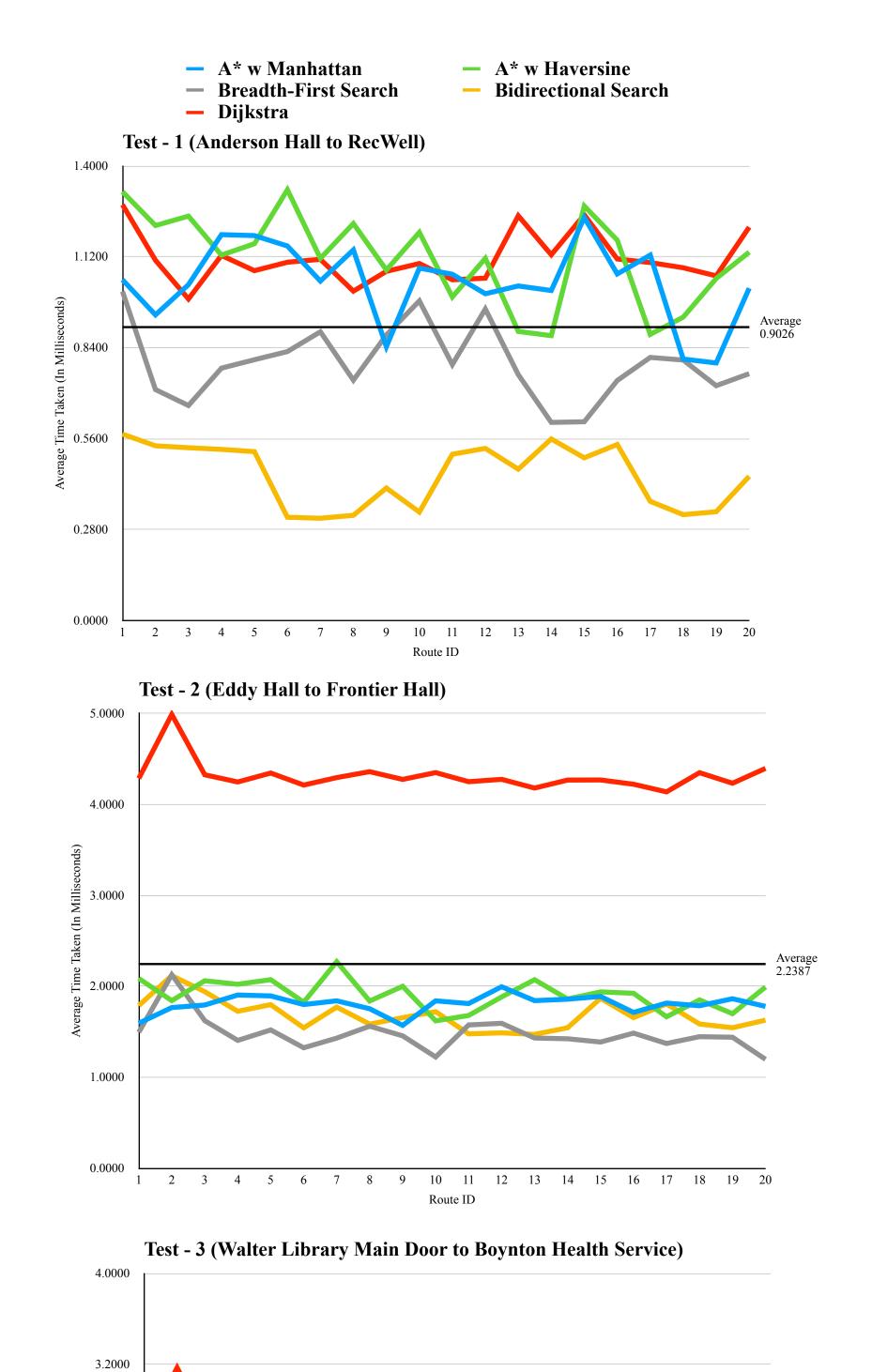
Result ID	Start	Destination	Average Time Taken	Average Memory	<b>Distance Traveled</b>
Result ID	Start	Destination	(in milliseconds)	Used (in Bytes)	(in Kilometers)
	1 Eddy Hall	Frontier Hall	1.7890	353523.875	1.6384
	2		2.1180	349057.142857143	
	3		1.9420	346587.068493151	
	4		1.7260	350204.148148148	
	5		1.7990	355621.538461538	
	6		1.5440	355066.208333333	
	7		1.7720	354764.958333333	
	8		1.5850	354958.70833333	
	9		1.6560	354421.791666667	
	10		1.7220	355030.821052632	
	11		1.4780	356318.5	
	12		1.4890	354448.833333333	
	13		1.4720	356217.389473684	
	14		1.5450	355938.125	
	15		1.8680	357577.25	
	16		1.6560	357191.32631579	
	17		1.8070	357602.25	
	18		1.5860	356729.726315789	
	19		1.5450	356514.291666667	
	20		1.6290	357199.32631579	
Total			33.7280	7094973.27910033	
Average			1.6864	354748.663955017	

Bidirectional Search-2						
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)	
1	Walter Library (main door)	Boynton Health Service	0.98300	170877.510204082	1.05	
2			1.4350	165436.314606742		
3			0.97800	170491.959183673		
4			0.92300	171253.469387755		
5			0.71300	161165.619047619		
6			0.78700	161421.431578947		
7			0.91900	161308.60465116		
8			0.86700	161253.647058824		
9			0.65800	160858.826086957		
10			0.76100	161393.25		
11			0.70700	161464.285714286		
12			0.65000	161490.163265306		
13			0.83100	161530.408163265		
14			0.81300	161763.714285714		
15			0.67200	160849.387755102		
16			0.89100	161469.30612244		
17			0.79500	161328.693877551		
18			0.68700	161745.836734694		
19			0.89800	161342.28571428		
20			0.82100	161594.408163265		
Total			16.789	3260039.12160168		
Average			0.83945	163001.956080084		

Dijkstra								
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)			
1	Anderson Hall	University Recreation and Wellness Center	1.2800	466908.617021277	1.1908			
2			1.1090	455543.123287671				
3			0.99000	445910.269662921				
4			1.1240	446235.747368421				
5			1.0770	447548.46808510				
6			1.1030	445572.884210526				
7			1.1120	445497.744680851				
8			1.0140	445047.494736842				
9			1.0750	445583.234042553				
10			1.0990	445145.810526316				
11			1.0490	445558.085106383				
12			1.0540	444873.642105263				
13			1.2460	446580.978723404				
14			1.1260	448396.842105263				
15			1.2490	444551.115789474				
16			1.1130	445346.212765957				
17			1.1020	445474.4				
18			1.0860	445090.863157895				
19			1.0610	446731.531914894				
20			1.2110	445772.12631579				
Total			22.28	8947369.19160681				
Average			1.114	447368.459580341				

Dijkstra-1									
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)				
1	Eddy Hall	Frontier Hall	4.2860	1654839.425	1.3584				
2			4.9890	1461066.42622951					
3			4.3260	1608965.53246753					
4			4.2470	1610453.9					
5			4.3450	1610794.525					
6			4.2130	1610002.6					
7			4.2950	1609503.5					
8			4.3600	1608525.7					
9			4.2750	1648186.475					
10			4.3500	1649436.95					
11			4.2500	1610054.675					
12			4.2760	1609754.5					
13			4.1800	1611114.65					
14			4.2680	1557759.17241379					
15			4.2690	1611256.075					
16			4.2220	1609542.55					
17			4.1380	1609472.25					
18			4.3490	1609358.65					
19			4.2330	1608421.675					
20			4.3960	1609481.6					
Total			86.2670	32117990.8311108					
Average			4.3134	1605899.54155554					
		D	ijkstra-2						

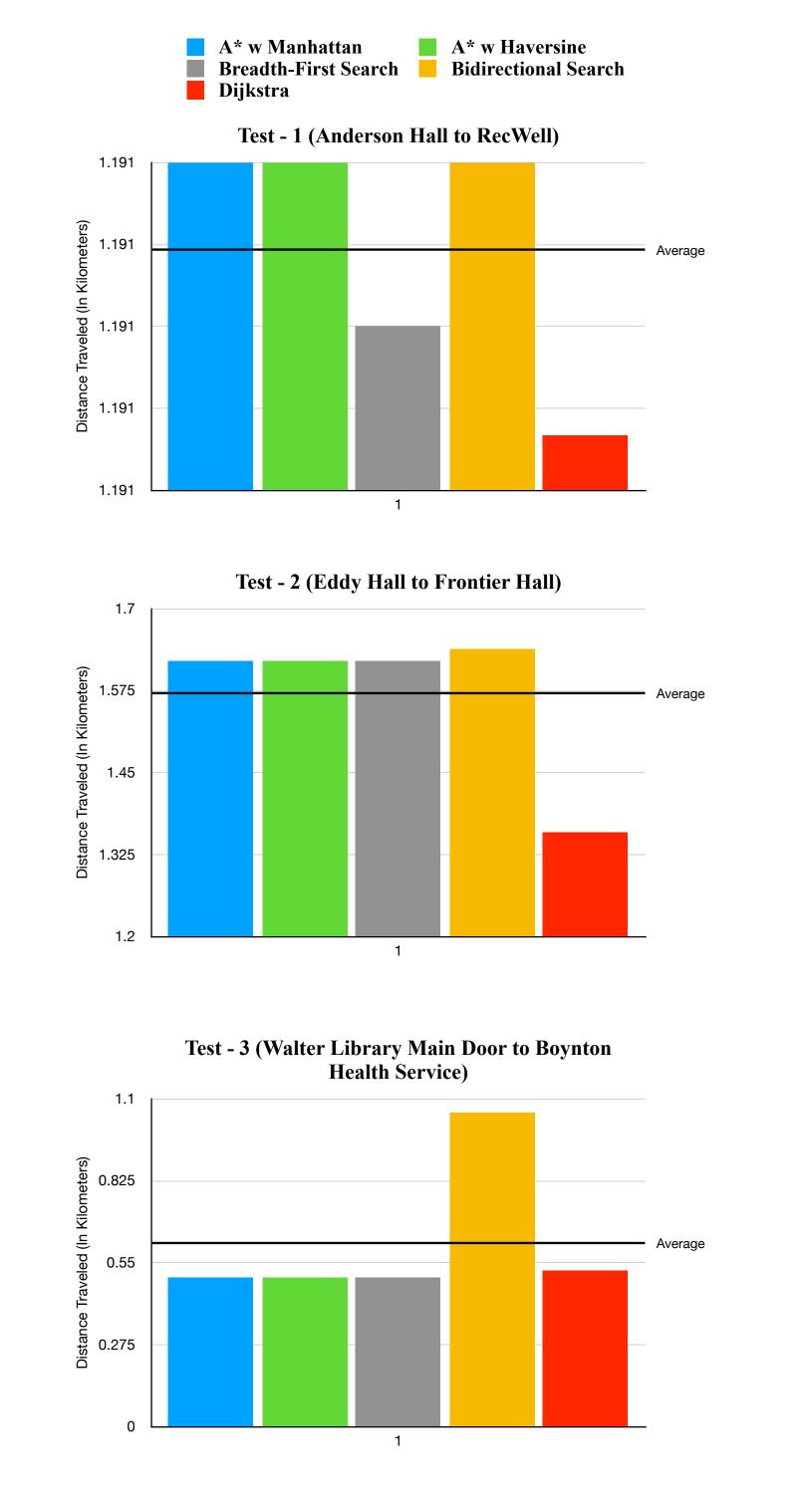
Result ID	Start	Destination	Average Time Taken (in milliseconds)	Average Memory Used (in Bytes)	Distance Traveled (in Kilometers)
1	Walter Library (main door)	Boynton Health Service	2.6150	1028495.14942529	0.5245
2			3.1680	813381.307692308	
3			2.6050	918100.862745098	
4			2.5090	993085.306666667	
5			2.3700	1007483.17241379	
6			2.3560	1003864.45454545	
7			2.5350	1008336.3636363	
8			2.4730	1008654.54545455	
9			2.4680	1008444.18181818	
10			2.3690	1008598.94252874	
11			2.4350	1003806.02298851	
12			2.4200	1003119.38636364	
13			2.6040	1005500.81818182	
14			2.4010	1000849.74712644	
15			2.3160	1005525.63218391	
16			2.4160	1001937.6818181	
17			2.5970	1012525.12643678	
18			2.4650	1001619.90804598	
19			2.4320	1007287.4545454	
20			2.4690	1000781.84090909	
Total			50.0230	19841397.9055262	
Average			2.5012	992069.89527631	



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



## Notes on the test results:

- 1. Results of each table are collected under the same device, browser, and the server.
- 2. After collecting data for each table, the browser will be
- refreshed and prepared for the next table.
- 3. The collection of memory usage is not from the standard library, it's Chrome-only technique, which might not be expected at other browsers.
- 4. Because there could be some cases that memory usages could be negative due to unknown JS/Browser-related problems, these cases are marked "Invalid" and our function eliminates these cases and shows how many valid cases at each time on the pop up.