

Course ID	CS162				
Class ID	22CTT1				
Student ID	22125008				
Project	Data Visualization				
No	Requirement	YES or NO			
1	C++	YES	if any of these requirements is NO, the project result is 0 point		
2	Multiple source files	YES			
3	Linked lists or Dynamic arrays	YES			
4	Struct for every data structure	YES			
5	File I/O	YES			
6	Prepare sample data for every complete feature	YES			
7	Demo video	YES			
8	Write a report to describe the structure of project	YES			
9	Count the number of commits	YES			
Notes		<p>Student is not allowed to edit this column</p> <p>63* 5 => max = 315 points</p> <p>91 bonus</p>	Student must fill in this column before submitting to Moodle		
		812	406		
Feature ID	Feature Description	Grade	Graded by Student	Notes	
	Static array				
1	Init from file	5	5		
2	Randomized data	5	5		
3	Insert to the first	5	5		
4	Insert to the last	5	5		
5	Insert to the middle	5	5		
6	Delete at the first	5	5		
7	Delete at the last	5	5		
8	Delete at the middle	5	5		
9	Update	5	5		
10	Access	5	5		
11	Search	5	5		
	Dynamic array				
12	Init from file	5	5		

13	Randomized data	5	5		
14	Insert to the first	5	5		
15	Insert to the last	5	5		
16	Insert to the middle	5	5		
17	Delete at the first	5	5		
18	Delete at the last	5	5		
19	Delete at the middle	5	5		
20	Update	5	5		
21	Allocate	5	5		
22	Access	5	5		
23	Search	5	5		
Simply linked list					
24	Init from file	5	5		
25	Randomized data	5	5		
26	Insert to the first	5	5		
27	Insert to the last	5	5		
28	Insert to the middle	5	5		
29	Delete at the first	5	5		
30	Delete at the last	5	5		
31	Delete at the middle	5	5		
32	Update	5	5		
33	Search	5	5		
Doubly linked list					
34	Init from file	5	5		
35	Randomized data	5	5		
36	Insert to the first	5	5		
37	Insert to the last	5	5		
38	Insert to the middle	5	5		
39	Delete at the first	5	5		
40	Delete at the last	5	5		
41	Delete at the middle	5	5		
42	Update	5	5		
43	Search	5	5		
Circular linked list					
44	Init from file	5	5		
45	Randomized data	5	5		
46	Insert to the first	5	5		
47	Insert to the last	5	5		
48	Insert to the middle	5	5		
49	Delete at the first	5	5		

50	Delete at the last	5	5		
51	Delete at the middle	5	5		
52	Update	5	5		
53	Search	5	5		
Stack					
54	Init from file	5	5		
55	Randomized data	5	5		
56	Push	5	5		
57	Pop	5	5		
58	Clear	5	5		
Queue					
59	Init from file	5	5		
60	Randomized data	5	5		
61	Add	5	5		
62	Remove	5	5		
63	Clear	5	5		
Bonus	Run step by step				
B1	Dynamic array	5	5		
B2	Simply linked list	10	10		
B3	Doubly linked list	10	10		
B4	Circular linked list	10	10		
B5	Stack	10	10		
B6	Queue	10	10		
Bonus	Color, size & style				
B7	Dynamic array	4	4		
B8	Simply linked list	4	4		
B9	Doubly linked list	4	4		
B10	Circular linked list	4	4		
B11	Stack	4	4		
B12	Queue	4	4		
Bonus	Show highlight				
B13	Dynamic array	2	2		
B14	Simply linked list	2	2		
B15	Doubly linked list	2	2		
B16	Circular linked list	2	2		
B17	Stack	2	2		
B18	Queue	2	2		