May 3, 2018

Lab 6

Problem statement:

Write a program that has the student year around grades, and sort them and print them out. Also shows stats like highest/lowest grade average and class size.

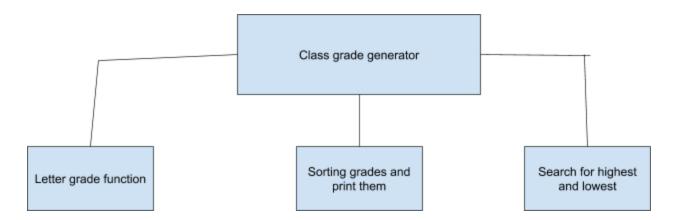
Output:

Class Size 28

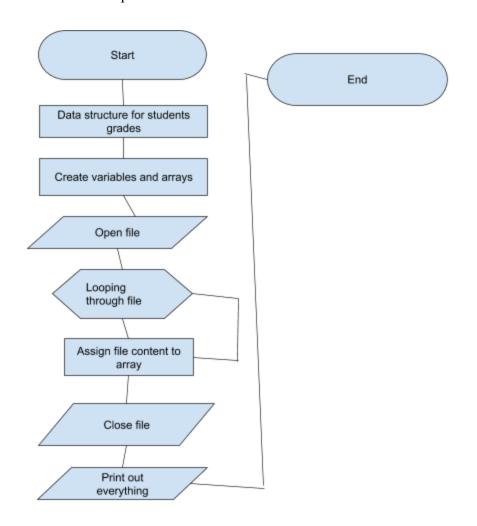
highest score ID: 26129 Score: 81 Letter grade: B Lowest score ID: 18205 Score: 61 Letter grade: D

Exam 1 average: 72 Exam 2 average: 72 Exam 3 average: 70 Final average: 76 Labs average: 68 Quizzes average: 70

Flowchart:



Flowchart and pseudocode



- 1.
- Start Program. Initialize data structure. 2.
- Create variables and arrays.
- 4. Open file.
- Loop through the file.
- Assign file content to the array. Close the file.
- 7.
- 8. Print out everything.
- 9. End the program.

Flowchart pseudocode for letter grade generator

Input file:

Input I		Exam2	Evam3	Oniz1	Ouiz?	Ouiz3	Lah1	Lah2	Lah3	Lab4	Lab5	Lab6
Journa		L'Adili2	LAams	Quizi	Quizz	Quizs	Laui	Lauz	Laus	Lau	Laus	Lauo
37192		47	48	67	70	74	57	87	57	56	67	93
53	87	1 /	10	07	70	, 1	31	07	51	50	07	75
35366		85	44	42	69	59	89	73	58	98	42	86
42	97						0,	, 5		, 0		
44454		94	82	78	61	52	52	78	99	70	95	66
63	47											
22692	88	57	98	93	59	66	51	48	99	69	46	41
54	48											
67072	89	79	91	71	57	52	83	69	90	82	99	84
47	61											
61816	60	49	48	57	41	68	84	53	76	82	83	82
84	98											
60777	81	86	70	71	57	87	83	40	56	73	83	54
57	90											
45864		50	85	57	67	87	86	51	40	61	94	83
43	77											
49904		57	66	63	88	84	50	71	84	66	44	67
81	61											
26619		70	67	41	88	94	89	73	45	89	94	99
72	97	0.1	02	70	5 4	0.0	<i>C</i> 1	6.5	<i>5</i> 1	4.5	0.1	<i>- -</i>
44806		91	92	78	54	80	61	65	51	45	91	55
73	72	90	16	56	00	94	50	70	66	<i>E E</i>	60	60
46459 53	89 40	89	46	56	90	94	50	79	66	55	68	60
27308		52	48	80	90	63	59	51	88	71	57	79
86	90	32	70	00	70	03	3)	<i>J</i> 1	00	/ 1	31	1)
20433		79	99	69	95	89	62	44	68	89	59	96
49	73	1)		0))3	0)	02		00	0)		70
65819		61	47	75	40	98	98	60	49	86	91	66
64	77	-									-	
26129		99	96	73	68	90	62	91	95	90	79	54
86	89											
56772		55	47	89	90	48	87	88	68	96	73	58
62	97											
64841	78	71	94	73	44	61	63	66	52	57	56	91
72	41											

49502	58	83	95	66	72	85	74	58	72	41	54	44
60	76											
11210	54	54	72	48	88	77	70	50	43	82	68	59
73	100											
30781	52	58	43	46	84	76	91	57	95	63	59	48
67	79											
54431	68	94	99	40	41	86	78	72	97	81	53	64
40	87											
34075	61	99	82	64	45	66	40	97	83	95	59	42
42	87											
50918		55	74	86	56	76	72	94	48	68	75	62
93	75											
18205	57	96	47	99	60	52	64	60	49	47	54	69
49	56							- 4				
25695	91	43	71	65	89	88	41	61	81	49	89	56
71	82	0.0	0.7	0.7	0.0	4.6	0.0	<i>C</i> 1		40	60	0.1
60760	80	99	87	87	98	46	99	61	66	48	69	81
77	79	70	40	<i>C</i> 1	0.5	0.0	<i>7</i> 1	0.7	<i>5</i> 1	0.2	4.5	100
67331	93	70	40	64	95	90	51	97	51	93	45	100
48	77											

Output:
User instruction:
Put a input file call dataset, then use ./lab06 to run the program. And File call grades will appear with grades for the students. And the program will print lowest score and highest score, and the average grades for exams, the final, quizzes, and labs.
Comments: It was kinda fun to make, because it was challenging and it using concept like that was more difficult. It was a simple project, but it was really challenging.