

Candy Bar Crush

Professor Caleb Fowler

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Problem.

Create a program which uses a `CandyBar` structure; which contains three members: brand name of candy bar, candy weight (which may be fractional), and number of calories. Create a `CandyBar` variable called `snack` and initialize it's members to "Mocha Munch", 2.3, and 350. The initialization should be part of the declaration for `snack`.

Constraints.

- Display the contents of the `snack` variable.
- Also create a three element array of `CandyBar` structures, initialize them to the values of your choice and display the contents of the array.

Bonus Features.

- Add a novel programmer defined feature you have devised (counts as 2 bonuses!).
- **Mandatory Bonus** Add a dynamically allocated array using `new` to hold the `CandyBar` structures - 2 bonus points! ¹

¹ This means you must do this bonus in order to gain more than 1 bonus point (ie get an A). That's because this is an important topic and you cannot really master this topic unless you can do this.

Due Date and Turn In.

Online Class Only.

This assignment is due on Saturday by 11:59 PM on the week it appears under Hw Due in your syllabus. Remember, online classes run from the Sunday shown on the Class Schedule to the following Saturday.

Classroom Class Only.

This assignment is due after the class shown on the syllabus (usually the first class of the week). It is late if you do not turn in a Peer Reviewed copy by the end of class.

Turn in ALL classes.

TURN HOMEWORK IN by uploading to the appropriate D2L Dropbox folder. You do not need to put your name in the **filename**; Homework1, 2 whatever will be just fine. D2L appends student information to the files when I download them, so I will see all this information automatically. I will review your work using the rubric at the end of the assignment.

Do NOT save your code as a .cpp file! Save it as a .txt file instead. Don't zip or otherwise compress your files. I will be able to read them once you get them on D2L. I have a script which converts the files to .cpp and automatically executes them. This script also runs other tests with them as well.

Using the Work of Others.

This is an individual assignment, you may use the Internet and your text to research it, but I expect you to work alone. Copying code from someone else and turning it in as your own is plagiarism. However, you **may** discuss code and the assignment. I have opened discussion groups in D2L to do this. I will monitor this, but not interfere. D2L will check your code against a database of other assignments. It tells me how similar your code is to someone else's. I consider isomorphic homework to be plagiarism. Do your own work.

Grading Rubric					
	Sophisticated	Highly Competent	Competent	Not Yet Competent	Unacceptable
Solution Fit with Client Needs	As Highly Competent, but also successfully performs 3 bonus features (for a total of 4).	As Competent but also successfully performs 1 bonus feature also	Successfully accomplishes all specifications and constraints with the test data set.	Accomplishes some specifications and/or constraints with test data set. May have logic errors.	Does not meet any specifications or constraints. May not compile.
User Friendliness	~ Code has program greeting to introduce itself. ~ Program identified input expected from user.	~ Code has program greeting to introduce itself. ~ Program identified input expected from user.	~ Code has program greeting to introduce itself. ~ Program identified input expected from user.	Program requires omniscient users to divine expected input(s).	Input prompts are just a blinking cursor.
Comments and Documentation	~ Proper program header. ~ Function's properly commented. ~ Comments identify blocks of logically different code, and/or, modifications to formula's are noted. ~ Good use of whitespace.	~ Proper program header. ~ Function's properly commented.	~ Proper program header.	1 Line comment header and/or comments don't match code.	Missing program header, and/or, missing or incoherent comments.