

project[1]: formatted input/output

Due Thursday, 2/4/2016, 12:59:59pm

Project Goals

The goals of this project are to:

1. Have you write your first C programs
2. Get you familiar with the `printf` and `scanf` functions

Important Notes:

1. **Formatting:** Make sure that you follow the precise recommendations for the output content and formatting: for example, do not change the text in the first problem from “The sum of the two fractions is:” to “The fraction sum is:”. Your assignment will be auto-graded and any change in formatting will result in a loss in the grade.
2. **Comments:** Header comments are required on all files and recommended for the rest of the program. Points will be deducted if no header comments are included.

Problem 1

Write a program that asks the user to enter two fractions separated by the + sign and prints out the sum of the two fractions. The program should function as follows (items underlined are to be entered by the user):

```
Enter two fractions separated by the plus sign in the format
a/b+c/d: 5/6+3/4
The sum of the two fractions is: 38/24
```

Save your program in a file called `addfrac.c`.

Challenge 1 for Problem 1 (2 extra credit points): Convert an improper fraction to a proper one. For example: if the answer is 38/24, reduce it to 1 14/24.

Challenge 2 for Problem 1 (2 extra credit points): Reduce a fraction to its most simple form. For example: if the answer is 75/100, reduce it to 3/4.

Problem 2

Write a program that prints information entered by a user, in a specific format, regarding an inventory list. The program should function as follows (items underlined are to be entered by the user):

```
Enter the item ID: 23
Enter the quantity of items: 10
Enter the price per item: 500
Enter the date of purchase (mm/dd/yyyy): 12/03/2015
```

Item	Quantity	Unit Price	Purchase Date
23	10	\$ 500.00	12/03/2015

The item number, quantity and date should be left justified. The unit price should be right justified. Consider that dollar amounts can go as much as \$9999.99.

Note: to help you with formatting, use tabs (\t) to line up the columns.

Save your program in a file called `inventory.c`.

Grading Rubric

Grading will be done for each problem as follows:

Correctly-named file	5%
Header comment	2%
Program compiles	5%
Correctly-reading data from terminal	18%
Correct result printed	20%

Submission details

The project needs to be submitted, Tuesday, 2/4/2016, 12:59:59pm.

To submit your project, you will have to save your project files to an ECC machine using the Linux VM or the nomachine client:

- create a directory called "project1"
- save your *.c files in that directory
- save your description file into that directory
- DO THIS ONCE: Install the submission script *(don't type the '>' symbols)*
 - > cd ~
 - > wget <http://www.cse.unr.edu/~newellz2/submit>
 - > chmod +x ./submit
- TO Submit:
 - > cd project1
 - > ~/submit

The submission script copies all files in the current directory to our directory. You may submit as many times as you like before the deadline, we only keep the last submission.

Academic Honesty

Academic dishonesty is against university as well as the system community standards. Academic dishonesty includes, but is not limited to, the following:

Plagiarism: defined as submitting the language, ideas, thoughts or work of another as one's own; or assisting in the act of plagiarism by allowing one's work to be used in this fashion.

Cheating: defined as (1) obtaining or providing unauthorized information during an examination through verbal, visual or unauthorized use of books, notes, text and other materials; (2) obtaining or providing information concerning all or part of an examination prior to that examination; (3) taking an examination for another student, or arranging for another person to take an exam in one's place; (4) altering or changing test answers after submittal for grading, grades after grades have been awarded, or other academic records once these are official.

Cheating, plagiarism or otherwise obtaining grades under false pretenses" constitute academic dishonesty according to the code of this university. Academic dishonesty will not be tolerated and penalties can include canceling a student's enrollment without a grade, giving an F for the course, or for the assignment. For more details, see the University of Nevada, Reno General Catalog.