

# CSC 152 programming assignment: bitwise

## Programming Assignment

Get a free account at <https://codestepbystep.com>. Use your Sac State email and the name that Canvas has for you. Under "My Account" connect it with the school "California State University Sacramento" (no comma!). Under "My Courses" add our course. This will allow me to monitor your progress and give you credit.

Code Step By Step can take several hours to send you a verification email (!!!). If you have waited at least half a day for your verification email AND you used a csus.edu email address, then send me an email and I might be able to manually verify it for you.

If you have created your account and attached it to our school and my class, then you should have access to a problem set titled "Homework 2". Your programming assignment this week is to complete this problem set.

## Testing and Grading

Code Step-by-Step runs your code against test cases. Once your code passes all of the test cases, you get credit for the problem.

## Submission

You do not need to do anything else to submit your work. As long as your code passes the test and you have linked your account with our class, I will be able to give you credit.

## Collaboration

You may collaborate with *one or two* other students on this homework if you wish, or work alone. Collaboration must be true collaboration however, which means that the work put into each problem should be roughly equal and all parties should come away understanding the solution. Here are some suggested ways of collaborating on the programming part.

- Pair programming. Two or three of you look at the same screen and only one of you operate the keyboard. The one at the keyboard is the "driver" and the other is the "navigator". The driver explains everything they are doing as they do it and the navigator asks questions and makes suggestions. If the navigator knows how to solve the problem and the driver does not, the navigator should not dictate solutions to the driver but instead should tutor the driver to help them understand. The driver and navigator should switch roles every 10-15 minutes. Problems solved this way can then be individually submitted.
- Code review. The members of the collaborative each try to solve the problem independently. They then take turns analyzing each other's code, asking questions trying to understand each other's algorithms and suggesting improvements. After the code reviews, each of you can then fix your code using what you learned from the reviews. Do not copy code. If the result of code review is that your code needs changes to be more like your partner's, do not copy it. Instead recreate your own variant without looking at your partner's.

The goal is to learn enough from one another so that you each can do similar problems independently in an exam situation.

If you want a collaborator but don't know people in the class, you can ask on Discord and/or use the group-finding post on Piazza.