

Here are all the steps that you need to do after writing your project. No one should think that these steps are extra work. Once you start working for a company, your boss will expect you to submit high-quality code. And here is, in a nutshell, how to write high-quality production code. This PDF has a list of 5 steps that you can do before publishing your project.

#### Step 1:

Run all your tests, and ask yourself: did all my tests pass? If not, then what adjustments do I need to make to pass all the tests?

Once you have all your tests pass and you think that your program is doing what it should, then you are ready for the next step.

#### Step 2:

Run all your tests in coverage mode, and ask yourself: is there any part of my program that is not being tested? If so, why? Is it because I did not write enough tests? Or, is it because my implementation of the program is poor? That is, I have a chunk of code that I use nowhere in my program. If you did not write enough tests, then write a test to make sure that %100 of your code is being tested. However, if your problem is having extra not needed code (meaning, dead code), then simply delete the code that is not being used. Once your coverage tests cover %100 of your code, then you're ready to move to the next step.

#### Step 3:

Run all your tests in debugging mode, and ask yourself: are the values of each of my variables correct (that is, what I expect them to be)? Is each method returning, and executing each line of code in the order you expect? If not, why? And what should you do to fix it? Finally, ask yourself the following question: is my program behaving the same way I expected to behave? If not, why? And what can I do to fix it?

Once you're done debugging, then you're ready to move to the next step.

#### Step 4:

Go to the file where the program is written, and ask yourself: is my code readable? That is, if another programmer looked at my code, then how long will it take for them to understand my implementation? Two minutes or one hour or a couple of days. What may seem clear to you may not be so clear to others. Therefore, make sure that you're using the simplest yet most effective methods to accomplish the needed tasks in your program, write comments next to each complicated line of code, write one sentence above each method explicitly telling what the method does, and finally, include a brief description on the top of your file stating what your module does, it's author, date it was created, how to use it, and it's purpose. Once you're done with this step, then you can move to the next one.

Step 5:

Run code inspection on your entire package, and ask yourself: are there any spelling errors? Are there any todo's that I need to do? Is there any incorrect spacing between my methods or my classes? If there are any mistakes, correct them. Otherwise, you're all set.

Congratulations! Now:

- 1- Your program has passed all your tests.
  - 2- There is no dead code in your project.
  - 3- Each line of code is doing exactly what is expected.
  - 4- You've also put an effort to present your project in a readable way for other programmers.
  - 5- You've checked for any spelling or spacing errors.
  - 6- You have done everything in your power to write the best possible code.
- Congratulations on this outstanding achievement.