

8 Traits for Successful Software Development

By Liezel Shaw

Software development is more than just programming or coding. It is about being provided with a problem and solving it by developing software as the solution.

The normal steps to follow when developing a system or solution for a client is as follows:

- Talk to the client about their requirements and expectations for the program they want developed. This is an important step to ensure you look at all eventualities and manage your client's expectations. The better the specs, the better your design and end result will be.
- Look at the technologies and tools at your disposal that will best suit the problem at hand. This will largely depend on the solution needed as well as the skill set available to you, whether its just you or you are part of a team.
- Next is to create a design for your application. This step is extremely important as it will save time with coding later. It can sometimes happen that you get halfway with a design and then realize that it won't work and you have to rethink or change it a bit. Now imagine if you skipped this step and just started coding right away ...? That would mean scrapping what you have done so far and starting over again or at the very least, changing it quite a bit. Not a good thought and it wastes valuable time.
- Once you are happy with your design, you can start putting it into action and coding it in your chosen language with the right tools and supporting services.

This is what's called the software development lifecycle (SDLC). There are different ways to approach the SDLC, one is the Waterfall approach, which is not recommended. A better way is to use the Agile methodology where you break the project into increments with regular deliverables and repeat the process until the project is completed.

But I'm getting ahead of myself here. If you've listened/read this far, you are obviously interested in software development and that is awesome! I've been doing software development for the past 20 years and still find it extremely rewarding when I can provide a solution to my clients that makes their lives easier and have fun while doing it too!

1

Enjoy Problem Solving

I would say that problem solving is the number **one** thing that developers do all the time. That is your main function, to solve your client's problem in the best possible way. So if you enjoy puzzles, brain teasers and solving problems in general and get a sense of accomplishment when you are able to solve the problem, then you are in a good space to be in software development. A good thing to remember is that there are different ways to solve the same problem, you just need to find the best and most efficient way you can think of to solve the problem and then trust yourself.

2

Become a lifelong learner



Technology is a very fast-paced industry. Some technologies I used only a few years ago, are almost obsolete already. I won't even mention some of the technologies and languages I learnt in varsity. You need to be a lifelong learner to stay up to date with all the latest technologies. If you don't keep on learning, you will get left behind in this industry. The best developers are the ones who keep up to date with technology and keep learning new tips, techniques and technologies. The good thing is that we now have Google and you can find a lot of information on the web about almost anything. Google is the go to for almost all developers if they get stuck on a problem as chances are that someone else has encountered that problem before you and would be able to help you with it too.

Albert Einstein said, "Once you stop learning, you start dying." This is especially true in the software development world.

3

Be determined and persevere

When writing code, you will at some point or another come across a problem that might have you stuck for quite some time, while trying to find a solution. In this case you need to have the grit and tenacity to persevere with it until you are able to solve the problem. You cannot afford to give up if someone is counting on you to solve their problem. Part of your job will be to figure out why something is not working and to then get it working. It should give you an immense sense of accomplishment when you finally solve the problem you have been battling with.

4

Be Creative

You need to be able to think 'outside the box' and get creative to come up with the best solutions. Sometimes when you are stuck on a problem, it helps to take a step back, change your perspective and think of the problem in a different more creative way. It might just help you stumble onto the solution that you were looking for.

*You may not think that programmers
are artists, but programming is an
extremely creative profession. It's
logic-based creativity*
- John Romero

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Think on your feet and adapt

With the fast changing nature of software development, you need to be able to think on your feet and change your thought patterns and sometimes coding, rapidly as the specs from clients change, evolve and grow. Don't be too set in your ways and resistant to change, it might be the difference between being ahead of the pack or being left behind.

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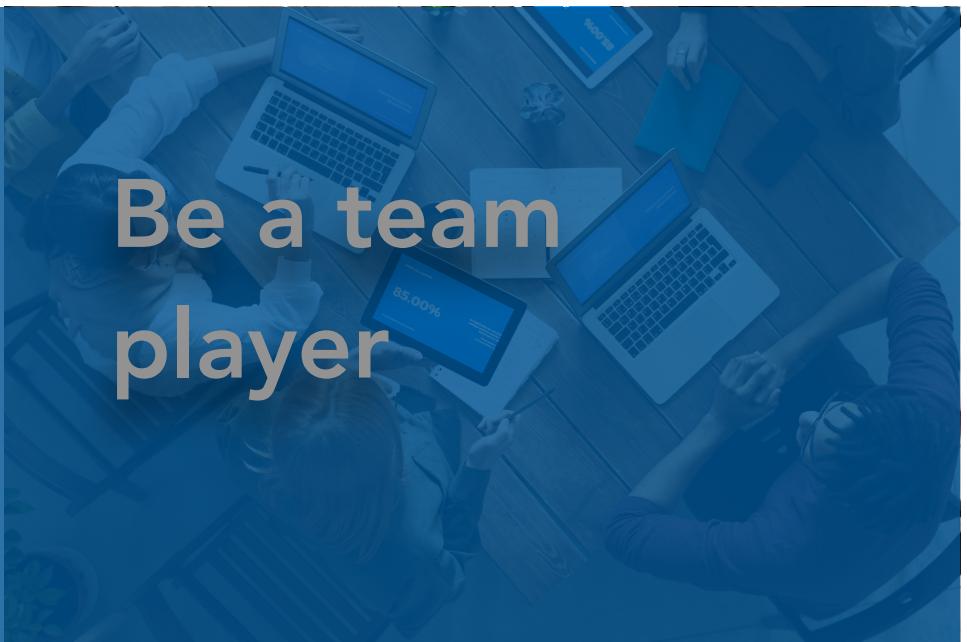
Pay attention to the details

To be able to have a robust solution, you need to pay attention to the little details to make sure that you haven't missed anything. Look at the solution from all sides and go through all possible scenarios. Especially when it comes to front-end coding, you need to think of all the possible ways that a client might be able to 'break' your code.

Developers who pay attention to detail will write more robust code and pick up mistakes in your own and other people's code. Computers only do what you tell them to do, if the code has a bug, it is not the computer's fault ...

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Be a team player



For some reason a large percentage of people interested in software development are introverts, but that doesn't mean that you isolate yourself and sit in your basement coding away at your next amazing app or that all developers are introverts.

Most often you will need to work as a team when you develop software. You need to be able to work with people, whether its your fellow developers or your clients.

Part of this is to be willing to learn from others, as well as willing to teach others. It works best if you help each other out and not keep all the information to yourself.

If a fellow developer has a problem that you've had before, help them out with the solution. Chances are that you will soon be in the situation where you might need help with a problem.

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Have Fun!

To become really good at something, it is important to enjoy it too. You need to get some satisfaction and joy from what you are doing otherwise it will become a chore and difficult to go that extra mile.

If you enjoy a good challenge, problem solving, making things and technology, then chances are pretty good that you will enjoy software development too.

About the Author

Liezcel Shaw



Liezcel Shaw has been doing Software Development for the past 20 years working for various business and clients. She specializes in full stack Java development and have created various new projects from the bottom up and being involved in all aspects of the development of these projects.



In addition to these development projects, she teaches full stack Java development using HTML, CSS, Bootstrap, Java, Spring-boot and MongoDB or Mysql.

She is passionate about helping people take the next step on their journey to invest in themselves and further their knowledge in the software development field.