## HOW TO LEARN TO PROGRAM FROM SCRATCH

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Programming is a big shell that affects most of our lives. Programming is based on algorithms, like our whole life, in certain situations that we have already experienced, everything acts according to an already given algorithm.

There is no one-size-fits-all way to learn how to code - you may need to experiment to find the one that works for you. If you are confident in your abilities and really crave to become a programmer, then you can try to achieve your goal with the help of self-education. It will not be easy, your path will be full of difficulties: you will have to figure out the problems yourself, share all the information on the Internet, on different publics and channels. But you can study at any time convenient for you.

But I believe that the easiest way to start learning programming is to buy online courses. There are many sites on the Internet that explain the basics of programming well. Pay attention to those options in which they teach on real projects.

Remember that nothing will work out without practice, therefore, study in courses and try to write programs yourself. Find lectures and YouTube channels with project breakdowns, copy other people's work and think about what's going on there, why this person wrote this way and whether it is possible to write it in a different way. Then try to change this program, experiment and create something of your own, even if it is not quite beautiful or practical.

If you have any difficulties in learning or during development, you can always turn to different channels or publics, or to the programming community, such as "Habr Q&A" and "Stack Overflow". It is also possible that you will not immediately find a course that suits you or you will not find one at all, then the following options will suit you.

The second way to learn programming is to contact a mentor. A mentor is a

personal teacher who will point out mistakes and help build a course of study. This option will save you a lot of problems and save valuable time.

The third option for learning programming is to sign up for "live" courses. Online and face-to-face courses have become very popular in recent times. But you will have to work hard on your own. But you will be engaged in a prepared program, and a living person will be able to check your tasks and point out errors and ways to solve them. The only drawback of this option is the high cost of training.

Also, a good option, in my opinion, is to study at the university in the specialty. If you have a lot of time and energy in reserve and you are sure that you can spend it on studying programming by entering the university, then this option is for you. But unfortunately, many educational institutions lag behind progress, so you will have to learn some programming languages and technologies yourself.

But, on the other hand, the university will provide good basic and practical knowledge in mathematics, algorithms and programming, which will help you become a sought-after and professional programmer. During the training, you will form the type of thinking you need, as well as you will form as a person and acquire the necessary skills, thanks to which you will be in demand in the professional field of IT. And what is not unimportant, university education is built on teaching your self-development, it teaches you to look for the information you need in various sources, teaches you how to communicate with other people to find solutions to problems. Also remember that you can always combine several study options, so while studying at the university you can attend courses or a personal teacher, which will be very effective and will bear fruit both in learning and at the university and in your personal development.

## **Reference:**

Mentor (2022) Retrieved from: <a href="https://happymonday.ua/zachem-nuzhen-mentor">https://happymonday.ua/zachem-nuzhen-mentor</a>