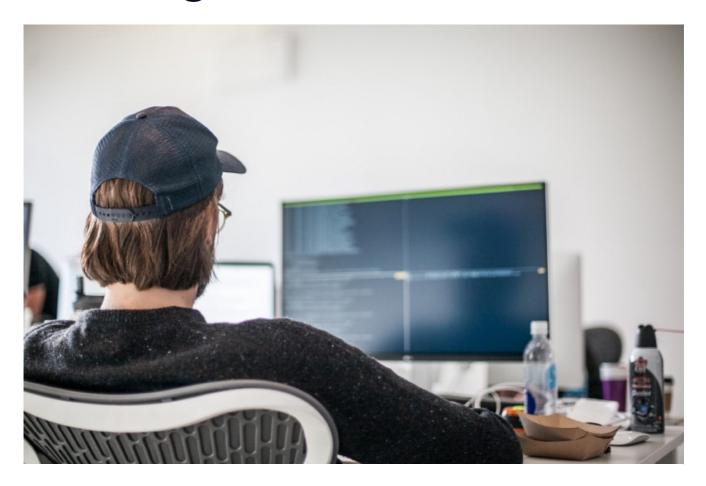
10 DECEMBER 2019 / #TECHNOLOGY

The 10 most popular coding challenge websites for 2020



by Daniel Borowski

A great way to improve your skills when learning to code is by solving coding challenges. Solving different types of challenges and puzzles can help you become a better problem solver, learn the intricacies of a programming language, prepare for job interviews, learn new algorithms, and more.

Below is a list of some popular coding challenge websites with a short description of what each one offers.

I. IUPCUUEI

TopCoder is one of the original platforms for competitive programming online. It provides a list of <u>algorithmic challenges</u> from the past that you can complete on your own directly online using their code editor. Their popular Single Round Matches are offered a few times per month at a specific time where you compete against others to solve challenges the fastest with the best score.

The <u>top ranked users</u> on TopCoder are very good competitive programmers and regularly compete in programming competitions. The top ranked user maintains his <u>own blog</u> titled *Algorithms weekly by Petr Mitrichev* where he writes about coding competitions, algorithms, math, and more.

2. Coderbyte



Coderbyte provides 200+ coding challenges you can solve directly online in one of 10 programming languages (check out this <u>example</u>). The challenges range from easy (finding the largest word in a string) to hard (print the maximum cardinality matching of a graph).

They also provide a collection of <u>algorithm tutorials</u>, introductory videos, and <u>interview preparation courses</u>. Unlike HackerRank and

users provide for any challenge aside from the *official* solutions posted by Coderbyte.

3. Project Euler

Problem 14

05 April 2002

The following iterative sequence is defined for the set of positive integers:

$$n \rightarrow n/2$$
 (*n* is even)
 $n \rightarrow 3n + 1$ (*n* is odd)

Using the rule above and starting with 13, we generate the following sequence:

$$13 \rightarrow 40 \rightarrow 20 \rightarrow 10 \rightarrow 5 \rightarrow 16 \rightarrow 8 \rightarrow 4 \rightarrow 2 \rightarrow 1$$

It can be seen that this sequence (starting at 13 and finishing at 1) contains 10 terms. Although it has not been proved yet (Collatz Problem), it is thought that all starting numbers finish at 1.

Which starting number, under one million, produces the longest chain?

NOTE: Once the chain starts the terms are allowed to go above one million.

Project Euler provides a large collection of challenges in the domain of computer science and mathematics. The challenges typically involve writing a small program to figure out the solution to a clever mathematical formula or equation, such as <u>finding the sum of digits</u> of all numbers preceding each number in a series.

You cannot directly code on the website in an editor, so you would need to write a solution on your own computer and then provide the solution on their website.

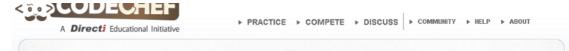
4. HackerRank



HackerRank provides challenges for several different domains such as Algorithms, Mathematics, SQL, Functional Programming, AI, and more. You can solve all the challenge directly online (check out this <u>example</u>). They provide a discussion and leaderboard for every challenge, and most challenges come with an editorial that explains more about the challenge and how to approach it to come up with a solution. Aside from the editorial, you cannot currently view the solutions of other users on HackerRank.

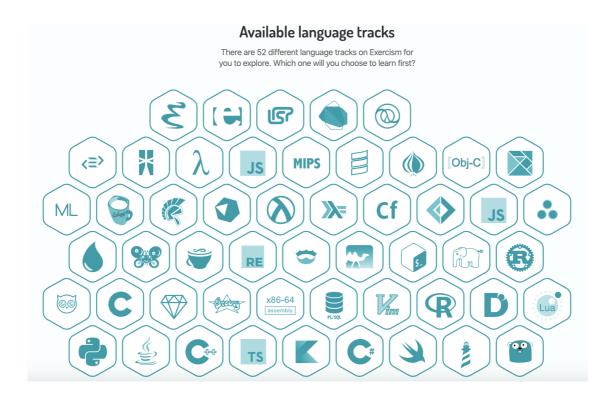
HackerRank also provides the ability for users to <u>submit</u> <u>applications</u> and apply to jobs by solving company-sponsored coding challenges.

5. CodeChef



CodeChef is an Indian-based competitive programming website that provides hundreds of challenges. You are able to write code in their police editor and view a collections of challenges that are separated into different categories depending on your skill-level practice problems of varying difficulty. Coding recognition and win cool stuff. Coding on your skill-level answered and be inspired. (check out this example). They have a large community of coders that contribute to the forums, write tutorials, and take part in CodeChef's coding competitions.

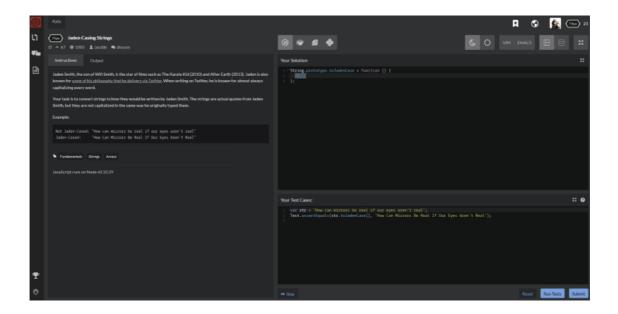
6. Exercism.io



Exercism is a coding challenge website that offers 3100+ challenges spanning 52 different programming languages. After picking a language that you'd like to master, you tackle the coding challenges right on your machine (Exercism has their own command line interface that you can download from GitHub).

you work with a mentor after completing each challenge. The mentor reviews your answers online and helps you improve them if needed. Once your answers have been approved and submitted, you unlock more challenges.

7. Codewars



Codewars provides a large collection of coding challenges submitted and edited by their own community. You can solve the challenges directly <u>online</u> in their editor in one of several languages. You can view a discussion for each challenges as well as user solutions.

8. LeetCode

There are n bulbs that are initially off. You first turn on all the bulbs. Then, you turn off every second bulb. On the third round, you toggle every third bulb (turning on if it's off or turning off if it's on). For the nth round, you only toggle the last bulb. Find how many bulbs are on after n rounds.

Example:

Leet Code is a popular Online Judge that provides a list of 190+

After first round, the three bulbs are [on, on, on].

After second round, the three bulbs are [on, off, on].

The lenges that Combine bulbs are [on, off, on].

So you should return 1, because there is only one bulb is on.

You can solve the challenges directly online in one of 9

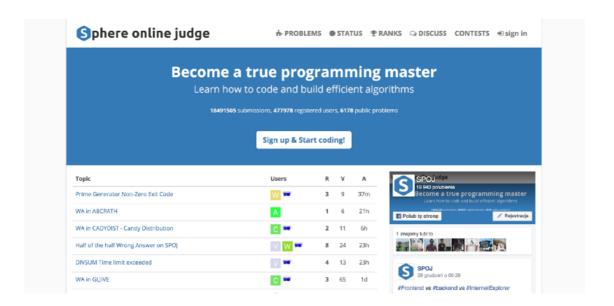
programming languages. You are not able to view other users'

Have you met this question in a real interview? Yes No

such as how fast your code ran when compared to other users' code.

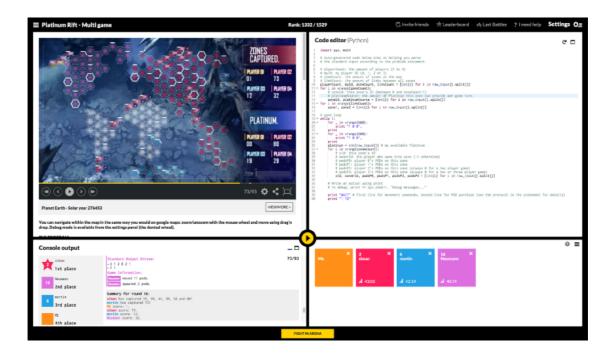
They also have a <u>Mock Interview</u> section that is specifically for job interview preparation, they host their own coding <u>contests</u>, and they have a section for <u>articles</u> to help you better understand certain problems.

9. SPOJ



Sphere Online Judge (SPOJ) is an online judge that provides over 20k coding challenges. You are able to submit your code in an <u>online editor</u>. SPOJ also hosts their own <u>contests</u> and has an area for users to discuss coding challenges. They do not currently provide any *official* solutions or editorials like some other websites do, though.

10. CodinGame



CodinGame is a bit different from the other websites, because instead of simply solving coding challenges in an editor, you actually take part in writing the code for games that you play directly online. You can see a list of games currently offered here and an example of one here. The game comes with a problem description, test cases, and an editor where you can write your code in one of 20+ programming languages.

Although this website is different than typical competitive programming websites such as the ones mentioned above, it is still popular amongst programmers who enjoy solving challenges and taking part in contests.

This list was based on a few things: my own experiences using the websites, some <u>Google searches</u>, <u>Quora posts</u>, and articles such as <u>this one</u> and <u>this one</u>. I also frequented some forums and subreddits such as <u>r/learnprogramming</u> to see what websites were usually

which is one of the websites mentioned above.

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