State of Software Development 2021
Welcome to the State of Software Development 2021 report!

We're proud to have been publishing this report annually since 2017. We've come a long way since then. This year, we're delivering you insight from nearly 600 people in the software industry, as we've worked with 12 fantastic partners to promote the survey.

The level of openness and enthusiasm we experienced in our shared effort is exactly what we need to build things bigger than ourselves. To build things that matter.

Software development matters to us. This is why we put in a tremendous amount of work to learn about its emerging trends. We consider people in software development a worldwide community. We care about the community deeply, and this is why we share everything we've learned.

What's in the 2021 report?
We refined the questions, but they largely remained the same. The idea is to show trends and to present the changing landscape of software development in an easily readable way.

The report is divided into five main sections. The first one focuses on management-related trends and challenges, followed by a technology and tool-focused chapter, then we move on to hiring, outsourcing, and finally performance management.

The data is filtered in different ways to show you the difference between the average and top-performing teams and between the challenges of developers and managers.

In some cases, we compare this year's data to previous results to show you how the trends have been emerging over the past years. I hope you will enjoy scrolling through the report and find some exciting insight you can apply right away.

Thank you,

Matt Wohlmuth
CEO, Coding Sans
our top partners

Publishing this report wouldn't have been possible without the close collaboration of our partners. They had the highest impact on taking this report to the next level and truly deserve a highlighted spot in this report.

---

**GitKraken**

The legendary GitKraken Git Client is designed to increase productivity by making Git commands processes fast and intuitive. Benefits include repo management, in-app code editing and merge conflict resolution. GitKraken Pro comes with a 7-day free trial.

---

**Clutch**

The leading ratings and reviews platform for IT, marketing, and business service providers used by over half a million buyers and sellers of services. Clutch has been recognized by Inc. Magazine as one of the 500 fastest growing companies in the U.S. and has been listed as a top 50 startup by LinkedIn. Check them out at Clutch.co!

---

**Cooperpress**

Cooperpress is the publisher for several weekly email newsletters reaching an audience of over 350,000 developers and software engineers. Never miss the important info about your favorite technology. [Click here to subscribe for free!](https://bit.ly/3tfK9jm)
Our partner companies did their fair part in promoting the survey and together, they made a serious impact on raising the participation level.
The biggest challenge tech companies are facing in 2021 is hiring talent. Some companies may have been forced to downsize, but it’s great to see many are in a position to keep hiring.

The second biggest challenge is capacity. This explains hiring being on top and points out a need to keep learning and perfecting processes. Reports like this provide a chance to learn from each other.

What makes this section more interesting is the separation of developers and developer managers since the nature of the two job categories are different, making their challenges different as well. Keep scrolling to see for yourself!
what is your biggest challenge in software development?

- Capacity (backlog, speed-to-market, etc) 20.71%
- Sharing knowledge/practices between team members 16.28%
- Time management 11.86%
- Prioritizing development 11.68%
- Employee retention 6.37%
- Selecting technology 5.66%
- Labor costs 3.89%
- Other 2.12%

what have you done to overcome these challenges?

### Hiring talent

The most important methods our participants use to be able to attract talent are:

- Building an engineering brand
- Advertising more
- Offering higher pay and better benefits
- Working with recruiters

Building an employer brand in engineering mostly involves giving back to the community. If you give without expecting anything in return, you’ll end up gaining recognition and building relationships, which makes hiring easier.

### Capacity

Here are the most popular choices to combat capacity issues:

- Improving prioritization
- Hiring engineers
- Outsourcing to contractors
- Improving processes

Increasing the available workforce either internally or externally is the most obvious way to increase overall development capacity. On the more interesting side of combating capacity issues, our participants often implement agile methodologies to streamline the workflow and use customer needs as a guide to better be able to prioritize development.
What is your biggest challenge in software development? (2019-2021)

- Capacity: 22.46% (2021), 18.26% (2020), 20.00% (2019)
- Sharing knowledge: 16.28% (2021), 19.46% (2020), 20.00% (2019)
- Time management: 11.86% (2021), 12.02% (2020), 12.66% (2019)
- Selecting technology: 3.89% (2021), 2.72% (2020), 2.88% (2019)
- Labor costs: 2.12% (2021), 2.32% (2020), 2.59% (2019)
- Other: 2.12% (2021), 3.29% (2020), 2.59% (2019)

*backlog, speed-to-market, etc
what is your biggest challenge in software development? (2021 - managers vs. developers)

- managers
- developers

- hiring talent: 25.91% (managers), 9.09% (developers)
- capacity*: 21.50% (managers), 18.79% (developers)
- sharing knowledge: 11.92% (managers), 9.84% (developers)
- time management: 17.58% (managers), 8.94% (developers)
- prioritizing development: 12.69% (managers), 18.79% (developers)
- employee retention: 10.30% (managers), 6.99% (developers)
- selecting technology: 9.70% (managers), 4.24% (developers)
- labor costs: 4.92% (managers), 4.15% (developers)
- other: 1.82% (managers), 2.07% (developers)

*backlog, speed-to-market, etc
how has COVID-19 affected your company?

- not affected at all: 20.92%
- negatively: 23.76%
- positively: 32.80%
- they even out: 22.52%

was your company forced to downsize because of the pandemic?

- no: 67.71%
- yes: 32.29%
what challenges has the pandemic added to your daily work?

1. **Difficulties with communication**

The majority of the participants mentioned that the forced remote environment made communication more difficult, causing a wide array of issues. Here are the most common occurrences:

- Lack of water cooler conversations
- Increased overhead in communication
- Asynchronous communication
- More meetings

The lack of personal touch in a remote environment decreased employee retention at many companies, beyond making the day-to-day work more monotonous and less fun.

Not being able to walk over and talk to a colleague also increased overhead on technical discussions, and minor issues often don’t even make it to discussions. This made extra meetings necessary, which takes even more time away from software engineers doing focused work.

Overall, remote communication has plenty of room for improvement. If you also struggle with this, check out our podcast episodes on remote work:

- Kate Womersley
- Tim Olshansky

2. **Work-life balance**

Many participants mentioned that working from home made separating personal life from work difficult.

Many people in the industry have trouble focusing on work with many distractions going on at home that they don’t have to deal with at the office. Others say working extra hours became regular.

It can turn into a vicious cycle where you have trouble focusing, so you end up putting in extra hours, take less rest, which will cause you to have less focus again. This is a common issue across the board that may be worth looking into to improve the quality of life for remote workers.

3. **More stress, burnout, and depression**

Slower and often lower quality communication, the lack of human interaction, and difficulties with work-life balance in themselves cause extra stress. On top of these, there is a lot of uncertainty everywhere.

This leads to depression and burnout becoming more widespread issues. They may still be less visible, because you only talk to your colleagues during meetings, as opposed to being around them all day in the office.

Mental health issues of any level are certainly real in the current atmosphere, and they deserve extra attention from employees, managers, and more senior leadership.
have you instituted remote work specifically because of the pandemic?

- Yes: 76.18%
- No: 5.64%
- We worked remotely before: 18.18%

is your company planning to switch back from remote work after the pandemic?

- Yes: 61.73%
- Hybrid model: 16.05%
- No, we remain remote: 10.29%
- I don't know: 11.93%
is remote work allowed at your company?

yes: 97.96%
no: 2.04%
percentage of companies allowing remote work (2018-2021)

- 2021: 97.96%
- 2020: 76.54%
- 2019: 72.20%
- 2018: 74.92%
“Early on, we underestimated the impact of social isolation on new hires working remotely.”

Using the camera helps

It’s part of the culture at Shopify to turn the video and audio on at virtual meetings. Seeing people smile, nod, or simply sit and pay attention is important to human connections.

Using the camera isn’t required, there may be reasons for turning it off at any time. Most employees use cameras anyway, and it improves the experience.

Example from Shopify’s remote onboarding

In week three, new hires spend the entire week shipping a data pipeline.

We start each day with a 30-minute call with a group of new hires to explain the task for the day, for example, designing a data model. Then we let them go and work on it, but they stay online in a Slack channel and in a virtual pod.

A virtual pod is a Google Hangouts meeting that stays open on the second monitor. Turning off the microphone or the video is okay, but it gives them the option to unmute as if they’d turn to a neighbor at the office and ask for help.

More experienced employees drop in at certain points during the day when the new hires are likely to have questions.

At the end of the day, we make a group call to debrief and discuss what has happened. We send their deliverables to their managers for feedback.

This only requires spending an hour in a video call each day, but they get the experience of working with a group.

Check out the interview here:
This section shows the most popular programming languages and tools developer teams use for testing, project management, version control, and communication.

Developer teams use a wide variety of tools (especially for testing and project management), which makes it especially hard to present the tools on a chart. The charts show a few industry-leading tools, following an army of tools forming at the tail end.

On the programming languages' side, it's exciting to see how newer technologies are gaining momentum and climbing in popularity.
what are your company’s primary programming languages? (2021)

- JavaScript: 49.47%
- Java: 28.19%
- TypeScript: 27.30%
- Python: 24.65%
- C#: 22.87%
- PHP: 17.02%
- C++: 11.35%
- Kotlin: 8.87%
- Go: 7.98%
- Ruby: 7.45%
- Swift: 6.56%
- C: 5.50%
- Objective C: 3.01%
- Other: 3.01%
- Perl: 2.66%
- Elixir: 1.95%
- Scala: 1.42%
- Clojure: 0.71%
what are your company’s primary programming languages? (2019-2021)
what new programming languages are you considering to use in the next 12 months?

- C: 0.89%
- Dart: 1.06%
- Perl: 1.42%
- Objective C: 2.30%
- Elixir: 2.66%
- Other: 2.84%
- Rust: 3.19%
- PHP: 3.55%
- Java: 4.26%
- Scala: 4.43%
- C++: 5.50%
- Ruby: 6.38%
- C#: 6.74%
- Swift: 7.09%
- Go: 11.17%
- JavaScript: 11.17%
- Kotlin: 11.52%
- Python: 17.20%
- TypeScript: 19.15%
- not considering any new languages: 32.45%
what tool(s) do you use for testing? (2021)

- Selenium: 22.16%
- Jest: 21.63%
- JUnit: 16.67%
- Pytest: 13.12%
- Browserstack: 10.99%
- Jmeter: 9.93%
- Mocha: 9.75%
- NUnit: 8.87%
- CircleCI: 8.69%
- Cucumber: 7.98%
- Other: 7.45%
- Phpunit: 6.03%
- Jasmine: 5.85%
- Karma: 5.32%
- Cypress: 2.66%
what tool(s) do you use for project management? (2021)

- Clubhouse 0.89%
- Gitlab Issues 1.06%
- ClickUp 1.06%
- Notion 1.06%
- Linear 2.48%
- Bitbucket Issues 3.90%
- VSTS 3.90%
- GitKraken Boards 4.08%
- TFS 4.61%
- Redmine 5.14%
- Not using any tool 5.32%
- Asana 6.56%
- Azure Boards 8.33%
- Other 8.51%
- GitHub Issues 12.59%
- GitHub Projects 14.54%
- Trello 18.44%
- Jira 50.18%

what tools do you use to communicate during a project? (2021)

- Email 50.00%
- Slack 48.05%
- Microsoft Teams 40.25%
- Zoom 30.67%
- Jira 29.26%
- Google Hangouts 20.57%
- Skype 10.82%
- Discord 9.93%
- Trello 9.22%
- Go to meeting 6.74%
- Other 5.85%
- Facebook 3.55%
- Fuze 2.13%
- Bitrix24 1.77%
- Hall 1.42%
- Campfire 1.24%
- Rocketchat 1.24%
what version control system do you use?

GitHub.com 42.55%
Bitbucket.org 16.31%
Azure DevOps 13.83%
GitHub Enterprise 10.99%
GitHub Self-Hosted 10.28%
Bitbucket Server 9.75%
SVN 6.38%
Other Self-Hosted Solution 6.21%
TFS 5.14%
Other Hosted Provider 3.19%
Perforce 2.84%
Not using any tool 1.95%
Other 1.95%

what source control client(s) do you use?

GitHub Desktop 22.16%
GitHub Desktop 14.01%
GitHub Desktop 12.77%
Not using any 12.59%
TortoiseGit 9.04%
SmartGit 4.79%
Fork 4.08%
Sublime Merge 4.08%
GitUp 3.55%
Visual Studio Code 3.37%
Other 3.37%
Tower 2.66%
IntelliJ 0.89%
Command line interface 43.44%
what IDE(s) do you use?

- VSCode: 50.53%
- Visual Studio: 28.19%
- IntelliJ IDEA: 23.76%
- Eclipse: 9.04%
- PhpStorm: 9.04%
- Sublime Text: 8.87%
- PyCharm: 7.62%
- Atom: 5.50%
- not using any: 3.72%
- other: 3.55%
- WebStorm: 1.24%
- VIM: 0.71%
- Xcode: 0.71%
- Android Studio: 0.53%
- Rider: 0.53%
Hiring is the top challenge in the industry currently, while retention has become a more serious issue in a remote environment. We wanted to learn more about how tech companies deal with this.

Since 2018, the most effective hiring methods haven’t changed. Employee referrals and having in-house recruiters are the best ways to hire talent.

This chapter also covers statistics on hiring criteria and employee retention, segmented by top- and average-performing teams to see if there are differences. On top of this, we compare results with previous years to show emerging trends.
what's your most efficient method to hire talent for software development? (2019-2021)
“When building an engineering brand, the go-to move is content like blog posts, podcasts, books, or speaking at conferences. If your existing employees like it, you’re on the right track.”

Check out the interview here: LEVEL-UP ENGINEERING PODCAST BY CODING IANS

People often start thinking about an engineering brand when they’re thinking about recruiting engineers. Developers have opportunities to join many different companies.

You want people to look at your job specification and think, “I’ve heard the Financial Times talking at a conference. They seemed to understand technology, and their engineering culture looked interesting and inclusive.”

1. Figure out your engineering brand

The first challenge is that you may not know what your brand is. You may have never had conversations about what it means to be in your engineering department. It rarely comes up until you start thinking about how to represent it.

You might find that not everyone has the same view about what your brand stands for. Figuring it out isn’t easy.

2. Put in time and effort

The second challenge is that it takes time and effort. You need people who take it seriously and maintain the effort in the long run.

You don’t want to publish a couple of blog posts and just stop. You need to be out there, continuously communicating in different ways, like writing blog posts and attending conferences. These provide opportunities for you to reach the type of people interested in what you’re doing, and make an impression or even directly connect with them.

To have a real impact, you want people to know that they can come back later and read more interesting stuff. Maintaining a pipeline of content and making sure that people always feel supported to go out and do talks takes a lot of work.
what are your most important hiring criteria? (2019-2021)

- **other**
  - 2021: 1.06%
  - 2020: 1.14%
  - 2019: 3.60%

- **certifications (i.e. AWS)**
  - 2021: 3.55%
  - 2020: 2.86%
  - 2019: 3.17%

- **college Degree**
  - 2021: 6.65%
  - 2020: 4.86%
  - 2019: 4.89%

- **test project or task**
  - 2021: 11.17%
  - 2020: 8.73%
  - 2019: 10.79%

- **side projects***
  - 2021: 10.64%
  - 2020: 12.18%
  - 2019: 11.80%

- **soft skills**
  - 2021: 24.85%
  - 2020: 25.32%
  - 2019: 21.87%

- **work experience**
  - 2021: 35.11%
  - 2020: 34.19%
  - 2019: 40.29%

- **technical skill evaluation (tests)**
  - 2021: 34.40%
  - 2020: 37.20%
  - 2019: 39.14%

- **cultural fit**
  - 2021: 38.65%
  - 2020: 40.20%
  - 2019: 38.85%

- **willingness to learn**
  - 2021: 40.78%
  - 2020: 46.40%
  - 2019: 54.68%

*apps, libraries, frameworks etc.
how do you attract new software developers? (2019-2021)
how do you keep software developers motivated? (2021)

- Team (team spirit, culture) 48.40%
- Challenging/engaging work 45.21%
- Autonomy 30.32%
- Career path 24.65%
- Variety of tasks 23.94%
- Money 23.23%
- Exciting product 21.63%
- Trainings 20.21%
- Extra benefits 18.62%
- Stock options 7.27%
- Other 1.06%
How do you keep software developers motivated?

(2021 - top vs average performers)
How do you keep software developers motivated? (2019-2021)

- Team (team spirit, culture)
  - 2021: 48.40%
  - 2020: 53.93%
  - 2019: 57.84%

- Challenging/engaging work
  - 2021: 45.21%
  - 2020: 52.36%
  - 2019: 56.26%

- Autonomy
  - 2021: 30.32%
  - 2020: 32.76%
  - 2019: 32.23%

- Career path
  - 2021: 24.65%
  - 2020: 20.14%
  - 2019: 20.03%

- Variety of tasks
  - 2021: 23.94%
  - 2020: 28.18%
  - 2019: 35.11%

- Money
  - 2021: 23.23%
  - 2020: 21.17%
  - 2019: 21.44%

- Exciting product
  - 2021: 21.63%
  - 2020: 25.18%
  - 2019: 23.02%

- Trainings
  - 2021: 20.21%
  - 2020: 18.17%
  - 2019: 24.03%

- Extra benefits
  - 2021: 7.27%
  - 2020: 13.88%
  - 2019: 16.26%

- Stock options
  - 2021: 4.03%
  - 2020: 6.44%
  - 2019: 1.58%

- Other
  - 2021: 1.06%
  - 2020: 0.98%
  - 2019: 1.58%
Since dealing with capacity issues is one of the biggest challenges along with hiring talent, outsourcing seems like a quick fix.

This chapter presents data on the proportion of companies that outsourced software development in the last 12 months and also the ones that are planning to do so in the next year. We also were interested in if they were satisfied with the outsourcing partner’s performance.
have you outsourced software development fully or partly in the last 12 months?

- **yes** 41.67%
- **no** 58.33%
to whom?

software development company
53.62%

freelancer
31.91%

both
14.47%
how satisfied were you with the results?

- Absolutely satisfied: 17.87%
- Somewhat satisfied: 46.81%
- Neither satisfied nor dissatisfied: 21.28%
- Somewhat dissatisfied: 11.06%
- Absolutely dissatisfied: 2.98%
are you planning to outsource software projects in the next 12 months?

- yes: 7.60%
- no: 69.91%
- i don't know: 22.49%
What are the differences between top- and average-performing teams? In this section, we dig deeper into how software teams measure performance and what the number one cause of delivery problems is.
How effective is software development at your company?

Top performers: 29.61%
Average performers: 24.65%
Low performers: 9.22%
what metrics do you use to measure developer performance? (2021)

- Working software: 48.05%
- Completed tasks: 46.99%
- Code readability: 25.00%
- We don't use any metrics: 21.99%
- Speed of developer: 20.92%
- Number of bugs: 20.92%
- Test coverage: 17.02%
- Third-party scoring/grading: 9.40%
- Lines of code written: 4.96%
- Other: 2.30%
what metrics do you use to measure developer performance? (2021 - top vs. average performing developer teams)

- Working software: Top performers 52.78%, Average performers 44.83%
- Completed tasks: Top performers 51.74%, Average performers 43.30%
- Code readability: Top performers 17.82%, Average performers 32.29%
- Number of bugs: Top performers 22.22%, Average performers 18.54%
- Speed of developer: Top performers 21.53%, Average performers 21.62%
- Test coverage: Top performers 19.44%, Average performers 19.54%
- We don't use any metrics: Top performers 24.90%, Average performers 19.92%
- Third-party scoring/grading: Top performers 11.46%, Average performers 14.56%
- Lines of code written: Top performers 7.28%, Average performers 6.13%
- Other: Top performers 2.08%, Average performers 2.30%
what is the #1 measured criteria for success of software development managers? (2021 - top vs. average performing developer teams)

- Working software: 26.39% top, 23.75% average
- On time delivery: 20.83% top, 18.86% average
- Not measured by any concrete criteria: 15.63% top, 22.99% average
- Customer or stakeholder survey results: 9.72% top, 7.86% average
- 360-reviews: 8.68% top, 8.05% average
- NPS or similar stakeholder satisfaction score: 5.56% top, 6.13% average
- Ticket/feature throughput: 5.56% top, 3.45% average
- Budget management: 3.82% top, 3.13% average
- Defect rates: 3.07% top, 0.69% average
- Other: 1.15% top, 0.69% average
what is the #1 cause of delivery problems for your team? (2021)

- Lack of clearly defined deliverables: 13.48%
- Unrealistic expectations: 12.06%
- Poor tooling: 11.52%
- Team turnover: 9.57%
- Failure to coordinate with outside teams: 9.40%
- Missing key skills on team: 9.04%
- Lack of management commitment and experience: 6.03%
- Lack of budget: 5.50%
- Lack of well-defined success criteria: 4.61%
- Requirement prioritization: 4.08%
- Ever changing landscape: 3.72%
- Lack of team experience: 3.55%
- Unrealistic expectations: 2.84%
- Poor tooling: 2.66%
- Ongoing trouble with outsourced vendors: 1.95%
- Other: 3.51%
what is the #1 cause of delivery problems for your team? (2021 - manager vs. developer)

- **lack of clearly defined deliverables**: 14.25% (managers), 10.91% (developers)
- **unrealistic expectations**: 13.47% (managers), 8.48% (developers)
- **lack of well-defined success criteria**: 9.84% (managers), 7.88% (developers)
- **estimation**: 8.81% (managers), 8.81% (developers)
- **requirements prioritization**: 11.52% (managers), 10.30% (developers)
- **ever changing landscape**: 18.18% (managers), 8.55% (developers)
- **lack of budget**: 6.22% (managers), 4.24% (developers)
- **lack of team experience**: 4.92% (managers), 8.48% (developers)
- **missing key skills on team**: 4.66% (managers), 6.67% (developers)
- **failure to coordinate with outside teams**: 4.40% (managers), 2.42% (developers)
- **other**: 4.15% (managers), 2.42% (developers)
- **lack of management commitment and experience**: 3.89% (managers), 6.67% (developers)
- **team turnover**: 1.82% (managers), 3.37% (developers)
- **poor tooling**: 3.11% (managers), 1.82% (developers)
- **ongoing trouble with outsourced vendors**: 1.81% (managers), 2.42% (developers)
what is the #1 cause of delivery problems for your team? (2021, top vs. average performing developer teams)
“When you take over a team, get a comprehensive perspective about them. Make sure you understand the context, talk to stakeholders outside the team, and examine the team’s background.”

Check out the interview here:

A team that lacks engagement, expertise, or if it has lots of infighting will unavoidably underperform. The leader needs to identify the root problems.

When the problem is with the people, you can usually solve it by getting a few people off the team. The rest of the team will often thank you for this because they tend to know who causes issues.

This is what I look at when probing team members:

1. Backlog

Take a look at the work they have done, the work they haven't done, and what's in their backlog. You get to see how easy or hard the tasks are that they've been working on, and you get an idea about their productivity.

2. Attitude and relationships

Talk to each team member to get a feel for their attitudes. People acting like they know everything raise a red flag. No one knows everything, and this kind of arrogance can hurt the team. It's also worth looking at their relationships with stakeholders. This helps you figure out if a person is a good colleague, or if they aren't great at human interactions.

Engagement

Leadership plays a huge role in building engagement. You need open, honest, transparent communication. Even if you can't tell everything about a specific topic, share as much information as you can.

On the other side, your people need to know that they can share confidential information with you, and you're not going to pass it on. You don't have to take trust to a personal level, but your team needs to trust you on a professional level.
This year’s State of Software Development survey had 564 respondents, all of them are professionals from the software industry. This chapter provides more info about who they are, what kind of company they work for and where they’re based.
to whom does your company primarily sell?

- B2B: 67.91%
- B2C: 21.63%
- B2G: 7.45%
- Other: 3.01%

where are you based? (in which continent is your company based?)

- Europe: 37.23%
- North America: 34.75%
- Asia & Australia: 13.65%
- Middle East, Africa: 5.14%
- Central & South America: 9.22%
what industry are you in?

- Software/technology: 32.38%
- IT Services/consulting: 18.97%
- Financial services: 8.69%
- Other: 8.69%
- Education: 4.55%
- Healthcare: 3.60%
- Marketing/PR or advertising: 3.60%
- Retail: 3.60%
- Government: 2.66%
- Automotive: 2.66%
- Consumer goods: 1.77%
- Telecommunications: 1.60%
- Travel & tourism: 1.42%
- Manufacturing: 1.42%
- Media/publishing: 1.42%
- Accounting services: 1.24%
- Arts & entertainment: 1.24%
- Utilities: 1.06%
- Human resources: 1.06%
- Other: 1.06%
### How many full-time employees does your company have?

<table>
<thead>
<tr>
<th>Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>13.48%</td>
</tr>
<tr>
<td>6-20</td>
<td>17.91%</td>
</tr>
<tr>
<td>21-50</td>
<td>20.04%</td>
</tr>
<tr>
<td>51-100</td>
<td>11.17%</td>
</tr>
<tr>
<td>101-200</td>
<td>8.51%</td>
</tr>
<tr>
<td>201+</td>
<td>28.80%</td>
</tr>
</tbody>
</table>

### How big is your software team?

<table>
<thead>
<tr>
<th>Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>25.89%</td>
</tr>
<tr>
<td>6-15</td>
<td>30.67%</td>
</tr>
<tr>
<td>16-25</td>
<td>12.94%</td>
</tr>
<tr>
<td>26-50</td>
<td>14.18%</td>
</tr>
<tr>
<td>51-100</td>
<td>7.62%</td>
</tr>
<tr>
<td>101+</td>
<td>8.89%</td>
</tr>
</tbody>
</table>
what’s your role in your company?

- developer: 28.55%
- lead developer: 23.23%
- engineering manager: 10.64%
- other: 7.98%
- chief technology officer: 6.56%
- product owner: 5.50%
- director of engineering: 5.50%
- head of engineering: 3.37%
- VP of engineering: 3.19%
- chief information officer: 3.01%
- chief executive officer: 2.48%
Coding Sans fielded an online survey in cooperation with 12 partner companies from February 2021 until April 1, 2021. The survey was available in English and consisted of 35 questions. The responses were sourced via email invitations, social media, and newsletter promotion with other companies. No personal information was collected within the survey. Tool discounts, and eGift cards were offered as incentives to increase survey participation and completion rate.
Coding Sans is a software development agency, building web applications from design to delivery with Node.js, React and Angular.

We're based in Hungary working for companies all around the world.

Let’s connect:

Our Facebook page

Yes, Twitter

Our LinkedIn page

Say hi here: info@codingsans.com

Questions & feedback: tamas@codingsans.com

Snail mail: 1051 Budapest, Arany János utca 10., Hungary

Website: www.codingsans.com