



At the beginning of this year, we conducted the second edition of "State of Angular" – it's a survey among the developer community in Poland. **If you are still wondering about Angular's situation in our country, you've come to the right place to find some answers!** The aim of this year's study was to have a better understanding of the developers and the general framework state in Poland. Here you will learn the results of this year's survey and go through the critical conclusions regarding jobs, satisfaction and motivation among Angular users in Poland. If you are curious:

- ✓ What study paths are most often chosen by Angular developers?
- ✓ What was their first choice in terms of the JS framework?
- ✓ How many years of experience with Angular do Polish developers have, on average?
- ✓ How long does it take to learn Angular?
- ✓ what other technologies are the developers familiar with?
- ✓ What are the most common elements of application development?
- ✓ How satisfied are the developers by working with Angular?

Be sure to read on!

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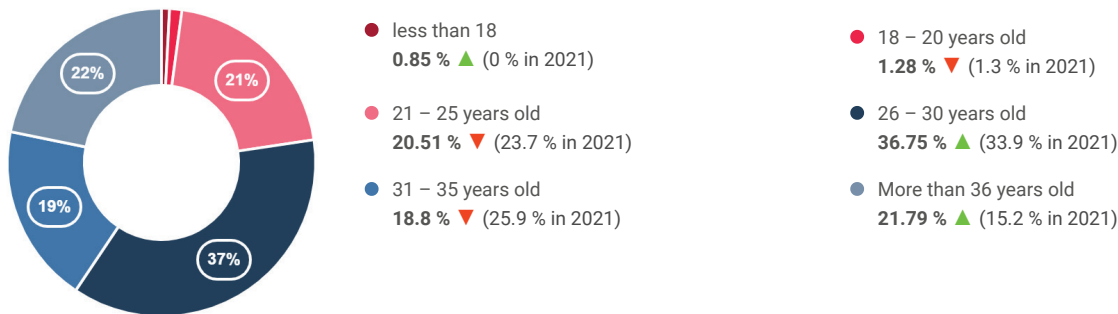
1. Level of satisfaction with Angular and willingness to continue working with it [on a scale from 1 to 5]
2. Level of satisfaction with Angular in the company

The research was organized online, among developers from all over Poland. They were asked a dozen questions about working with Angular and their attitude towards the framework. This section provides an overview and a summary of the key conclusions drawn from this and last year's edition.

General

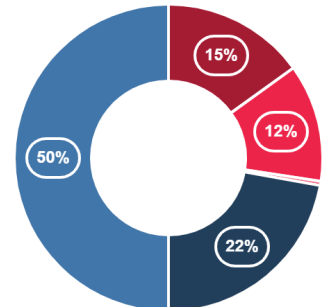
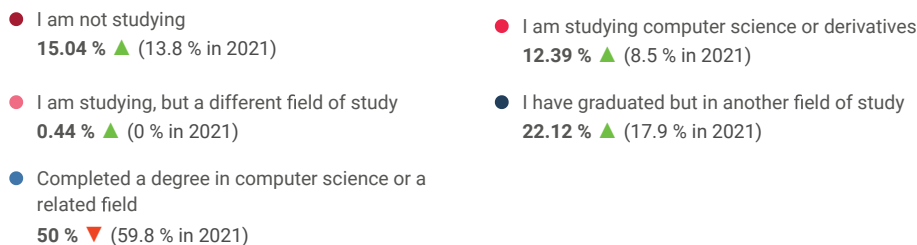
1.1. Age

256 programmers took part in this year's "State of Angular" edition. Over 1/3 of them are people aged 26-30, who happen to be the largest group of respondents, similar to 2021.



1.2. Education paths

Nearly 63% of the developers admitted that they have studied or are still studying for a degree in computer science or a related field of study. 50% of them have already completed these studies, and the rest – nearly 13% are still in the process. Approximately 22% of those interviewed have earned a degree in another field, and 15% don't have a college degree at all.



Experience

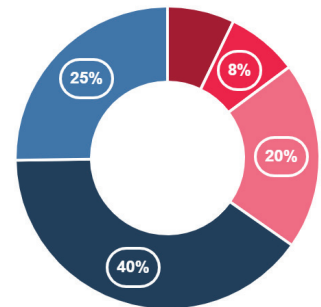
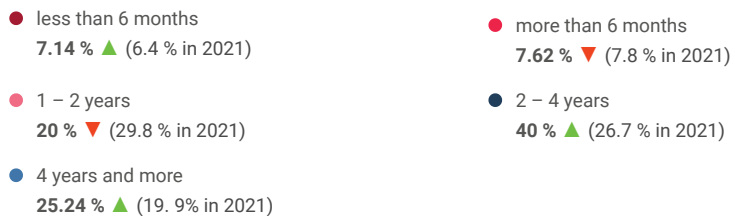
2.1. Commercial programming experience

Experience is one of the key aspects analyzed in the "State of Angular". **More than half of the respondents are developers with at least 4 years of experience in the industry** and this number is up 4% compared to the previous year. The next largest group are people with 2-4 years of experience (27.5%) and those working from 1 to 2 years in the industry – less than 10%. People working for more than 6 months accounted for 5.4% of the respondents. People who are starting their adventure with Angular and those who don't work commercially yet remain the least numerous group in this study, although their share has increased compared to the previous year.



2.2. Commercial Experience in Angular

It is noticeable that the number of people with experience in working with this framework has increased. Developers working with Angular for 2 or more years constitute over 65% of all survey participants, which is equivalent to an increase of almost 20% compared to the previous year. Programmers who have been using Angular from 1 to 2 years make up 20%. The smallest group are those who work with Angular for the shortest period of time – less than a year. This shows that our front-end framework has more and more experienced developers.

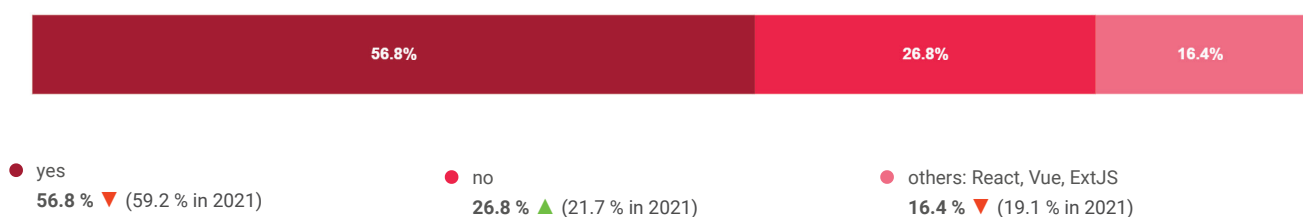


Beginnings and studies

3.1. Was Angular the first choice from the JS Framework?

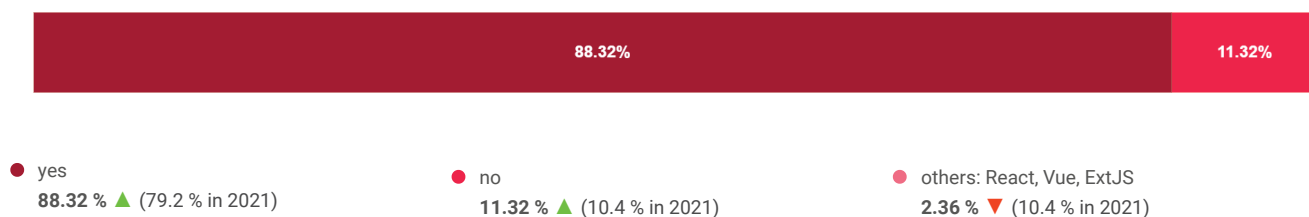
Wyniki pokazały, że prawie 68% ankietowanych właśnie Angulara wybrało jako pierwszy framework JS i jest to jednocześnie 8% wzrost w porównaniu z rokiem poprzednim, podczas gdy pozostali zaczęli swoją przygodę z programowaniem w JS od innego frameworka. Tutaj pojawiały się takie odpowiedzi jak: Knockout JS, React, jQuery, Vue.js czy ExtJS.

The results show that almost 68% of the respondents chose Angular as the first JS Framework, which is also an 8% increase compared to last year, while the rest started their adventure with JS programming by using a different framework. Following frameworks came up: Knockout JS, React, jQuery, Vue.js or ExtJS.



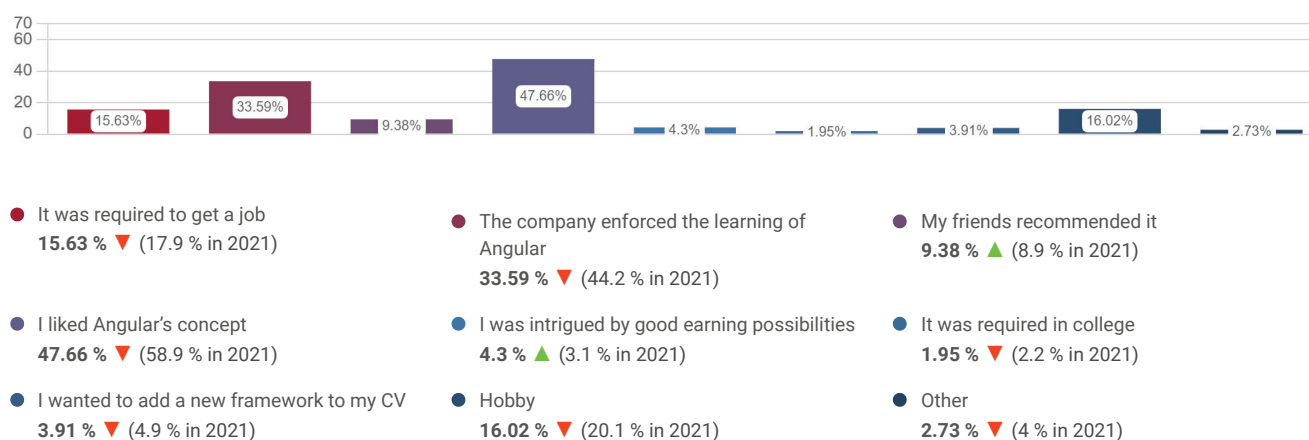
3.2. Is Angular the main framework used at work?

Almost 90% of the respondents revealed that Angular is the main framework they use at work! This number makes us very happy. This year we recorded a growth of almost 10% compared to 2021. It seems that companies are increasingly choosing Angular as their main frontend framework 😊



3.3. Reasons to start learning Angular

It can be noticed that Angular is mainly used for pleasure, whether it is work or not. We are glad that **the largest group (47.66%) are programmers who started learning Angular because they liked its concept**. However, for 33.59% of participants, the company enforced the learning of this forward-looking framework on them. Moreover, 15.63% of the respondents said that Angular was one of the requirements to get a job. Almost 1/5 of all the participants learned Angular purely as a hobby. It can be noticed that Angular is mainly used for pleasure, whether it is work or not. We are glad that the largest group (47.66%) are programmers who started learning Angular because they liked its concept. However, for 33.59% of participants, the company enforced the learning of this forward-looking framework on them. Moreover, 15.63% of the respondents said that Angular was one of the requirements to get a job. Almost 1/5 of all the participants learned Angular purely as a hobby.

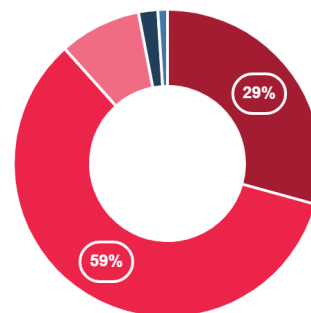


3.4. Time spent on learning Angular

If we are already on the subject of studies, it is worth emphasizing that **the vast majority of developers spend up to 8 hours a week expanding their framework knowledge**. But almost 30% do not dedicate extra time to exploring Angular – because according to the theory “learning by doing”, they already learn by using the framework at work.

- 0 h – only as much as at work
29.29 % ▼ (29.9 % in 2021)
- 8 – 12 hours weekly
8.59 % ▼ (11.2 % in 2021)
- 18 – 24 hours weekly
1.01 % ▲ (0.4 % in 2021)

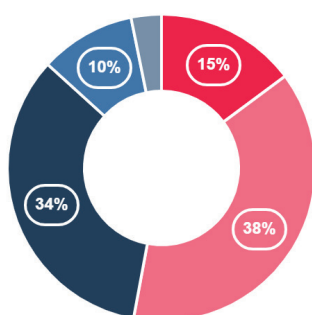
- 0 – 8 hours weekly
59.09 % ▲ (53.6 % in 2021)
- 12 – 18 hours weekly
2.02 % ▼ (4 % in 2021)
- 24 hours and more weekly
0 % ▼ (0.9 % in 2021)



Work

4.1. Job levels

This question was supposed to verify the positions of our participants at their workplaces. **Almost 34% of the respondents define themselves as seniors, over 38% as mids**, nearly 15% are juniors and about 10% are architects. A decrease in mids and an increase of seniors and architects can be noted compared to last year, which leads to the conclusion that **many mids became seniors and seniors became architects**. It's nice to see that our environment is growing, and that "State of Angular" participants climb up the next rungs of their career ladder! 😊



- apprenticeship/internship
0 % (0 % in 2021)
- medium
38.1 % ▼ (47.2 % in 2021)
- architect
10.05 % ▲ (8.3 % in 2021)

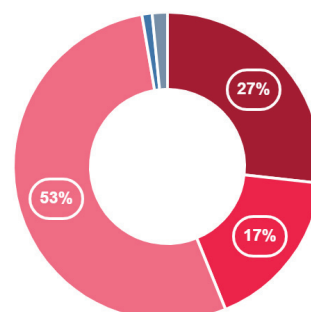
- junior
14.81 % ▲ (14.2 % in 2021)
- senior
33.86 % ▲ (28 % in 2021)
- hard to say because I'm a freelancer
3.17 % ▲ (2.3 % in 2021)

4.2. Types of companies

Where do Polish Angular Developers most often work? It turns out that **more than half of them are employed in companies that develop their own products**. Almost 27% of the respondents are people working in software houses that implement projects for other companies. It can also be observed that **outsourcing is becoming more and more popular** – over the course of one year, the numbers went up by 5% (from around 12% in 2021 to over 17% in 2022).

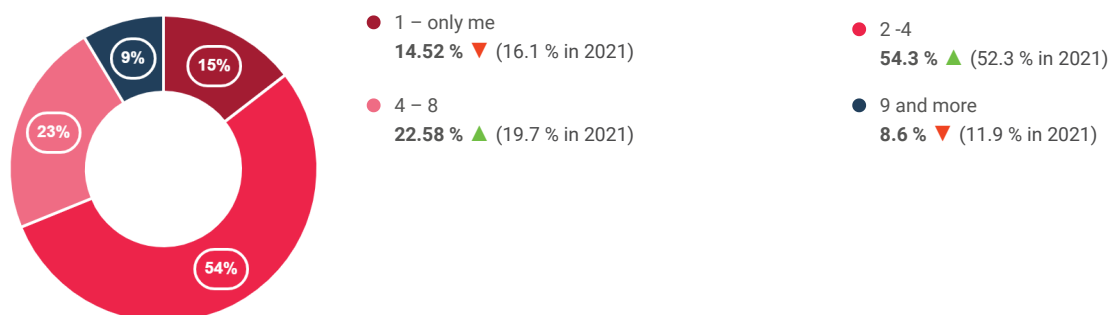
- Software House – we do projects for other companies
26.74 % ▼ (30.7 % in 2021)
- Product – I'm working on a product for my company
53.48 % ▲ (52.8 % in 2021)
- Freelance
1.07 % ▼ (2.3 % in 2021)

- Outsourcing – the company rents me out to other clients
17.11 % ▲ (12.4 % in 2021)
- Interactive / digital agency – mainly light advertising projects
0 % (0 % in 2021)
- Not applicable
1.6 % ▼ (1.8 % in 2021)



4.3. Team size

Having colleagues in Angular teams can certainly have a positive effect on efficiency. **Angular Developers mostly work in teams of 2-4 people** (over half of the respondents). Almost 23% indicated working in teams consisting of 4 to 8 people, while 8.6% work in teams of 9 or more Angular Developers. However, there are also developers who work alone (over 14.5% of responses) and don't have the opportunity to exchange knowledge with other people from the Angular teams. This brings us to the next question.



4.4. Sharing knowledge – can Angular Developers learn from others?

47.85% of the respondents revealed that they have the opportunity to learn from others at work. Unfortunately, over 52% don't have this possibility. However, **the number of people who can share knowledge with others is growing** – this year by over 7% compared to the last. We are very happy about this fact and of course, we hope that this number will get even bigger next year!



4.5. How many Angular Developers are Fullstack Developers?

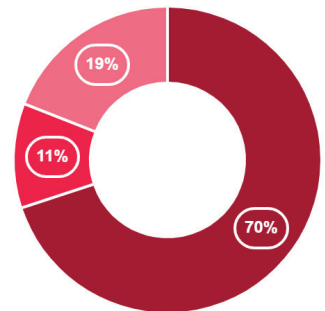
How many of our participants are Fullstack Developers, and how many of them only focus on frontend frameworks? It turns out that **most of them focus on the frontend (almost 56%)**. Interestingly, in last year's study, the proportion was the opposite – most of the respondents then admitted that they work as Fullstack Developers.



4.6. How are initiatives carried out in companies to improve the quality of programming?

70% of the respondents answered that the initiatives are taken from the bottom up – almost 10% more than a year ago. Over 11% of the respondents indicated the implementation of initiatives top-down. The remaining part, 19%, stated that there were no such initiatives. Overall, the number of undertaken initiatives increased by almost 6% compared to the previous year.

- bottom-up
69.94 % ▲ (61 % in 2021)
- top-down
11.04 % ▼ (14.2 % in 2021)
- no such initiatives
19.02 % ▼ (24.8 % in 2021)



4.7. Dedicated time for self-development in Angular or other technologies

Do developers have dedicated time for **broadening their horizons and expanding their skills and knowledge**? It turns out that **less than 37.5% of the respondents have dedicated working hours to do so** and **more than 62% don't have such a possibility at all**. However, looking back at the previous year, we noted a 6% growth in the number of people who do have this opportunity – we hope that the trend will continue and the numbers will keep on growing!

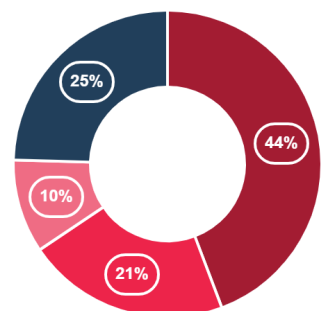


- yes
37.42 % ▲ (31.7 % in 2021)
- no
62.58 % ▼ (68.3 % in 2021)

4.8. Working hours dedicated to self-development in Angular or other technologies

How much time do respondents who have been granted dedicated time for improvement in Angular or other technologies spend on their self-development? **The majority**, that is over 44%, **spend up to 2 hours per week**, more than 21% spend 3-4 hours per week and less than 10% spend 4-8 hours per week. Over 24.5% confirm that they have dedicated development time, but they don't use it because they are already making progress and improving their skills while working on a project.

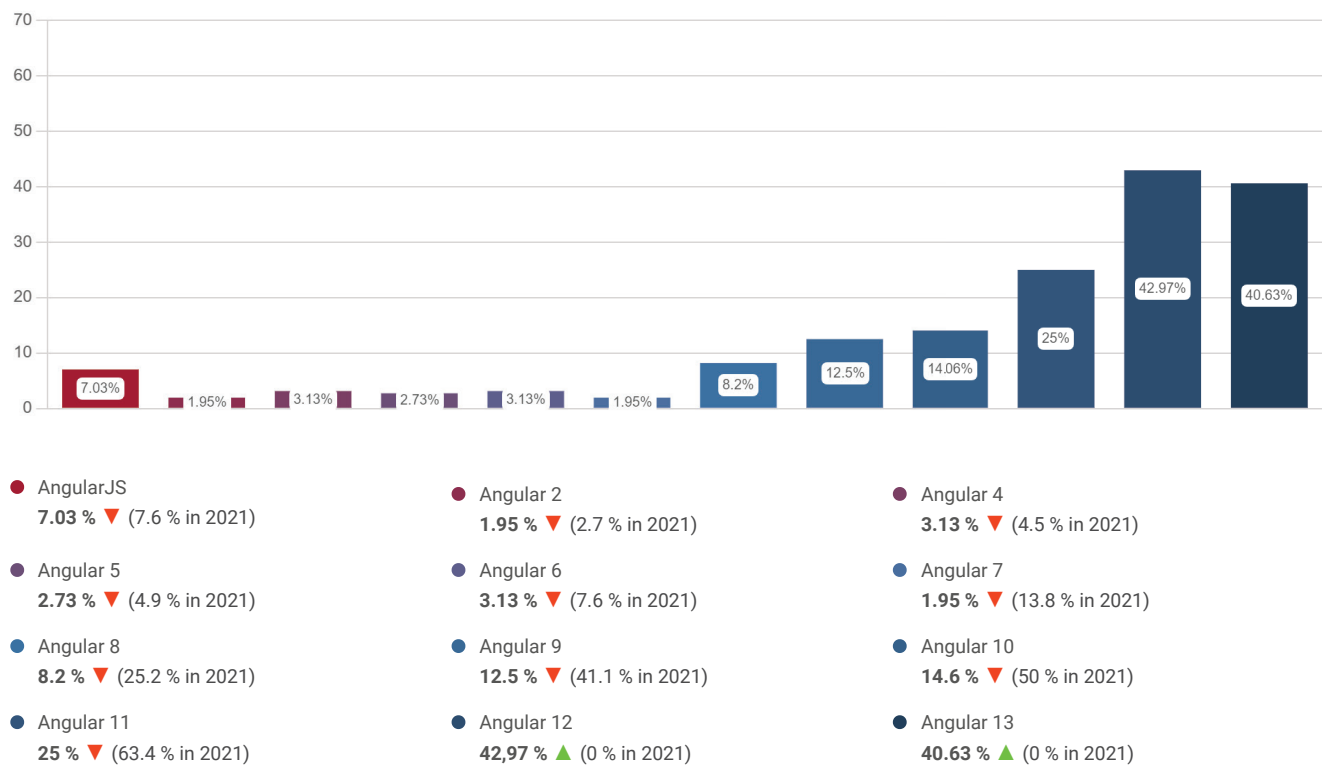
- 0 – 2 hours
44.26 % ▲ (39.1 % in 2021)
- 3 – 4 hours
21.31 % ▼ (24.6 % in 2021)
- 4 – 8 hours
9.84 % ▼ (15.6 % in 2021)
- I've been granted dedicated self-development time, but I don't use it because I'm already improving my skills while working on a project
24.59 % ▲ (21.7 % in 2021)



Technology and the knowledge level

5.1. Angular version used

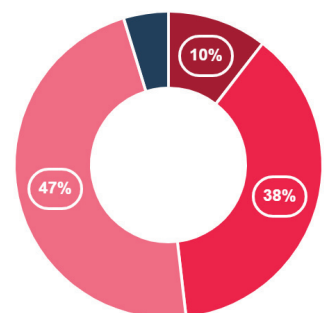
If we're talking about Angular, then of course we must also address its versions. We asked the developers which version of Angular they are currently using. **The most popular by far are its latest versions – 12 and 13.** The respondents also indicated the use of version 11 (25%), 10 (14.6%), 9 (12.5%) and 8 (8.2%). Earlier framework versions are still used by some programmers, but much less frequently. Looking at Angular 11 and the earlier versions, there has been a usage drop compared to the previous year. You can see that the **Developers are mostly trying to use the latest versions.**



5.2. NestJS knowledge

Moving away from Angular for a moment, we asked the survey participants about their familiarity with **NestJS**. **About 10.5% of the programmers use it in their daily work, and almost 38% know exactly what NestJS is, but don't use it in their daily work.** As many as 47% of the people admit that they have heard about this technology and only 4.71% have never heard of it. Comparing these responses with last year's survey, you can observe that more and more developers know about it and also use this technology.

- yes, I use it in my daily work
10.47 % ▲ (7.2 % in 2021)
- yes, I know perfectly well what it is, but I don't use it in my daily work
37.7 % ▲ (35.3 % in 2021)
- yes, I've heard about it
47.12 % ▲ (44.6 % in 2021)
- I've never heard of it
4.71 % ▼ (12.9 % in 2021)

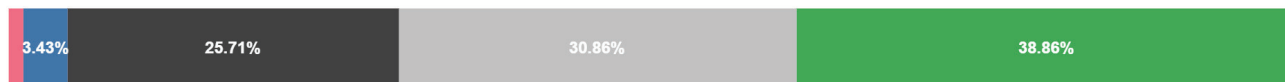


5.3. Technology knowledge

The aim of this section was to check the knowledge of various technologies among developers in Poland. This time, the respondents had to assess their **skills in the field of 28 presented technologies**. In the case of Angular, almost 40% of the people declared that they know it well enough to share their knowledge with others. When it comes to TypeScript, such responses accounted for 28%.

- 0 – I don't know what it is
- 1 – I heard of it, read about it, but I never used it
- 2 – I'm skilled but I use it sporadically
- 3 – I'm skilled and I use it regularly
- 4 – I use it and I know it in detail
- 5 – I know it well enough to share my knowledge and teach others

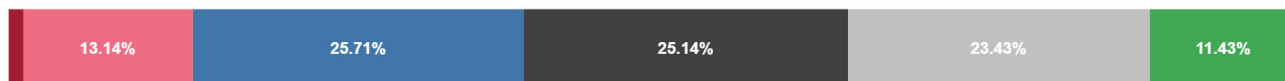
Angular



TypeScript



Angular Material



other UI components



RxJs



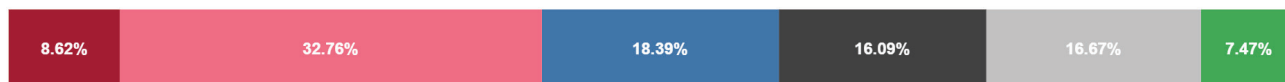
NGXS



Akita



NgRx Store



Ngrx Component Store



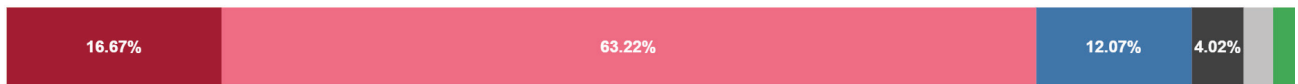
Ngrx Data



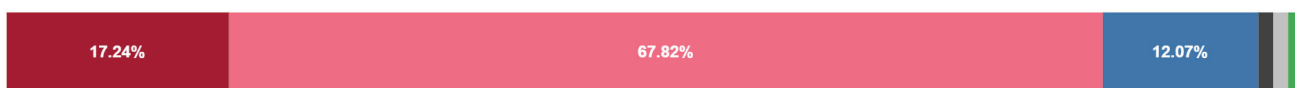
NativeScript



Ionic



Electron



Universal or other SSR



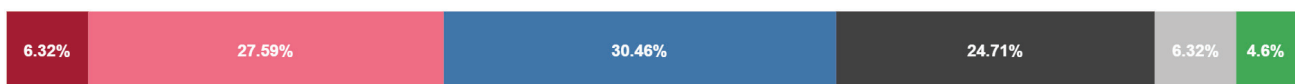
Cypress



Jest



Jasmine



ngneat/spectator



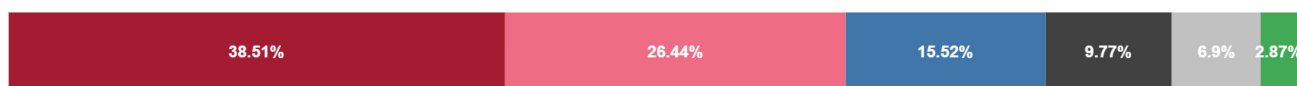
ngneat/transloco



NGX-translations



Nrwl/nx



Continuous Integration on the frontend



Continuous deployment on the frontend



Angular Schematics



PWA



GraphQL



Apollo



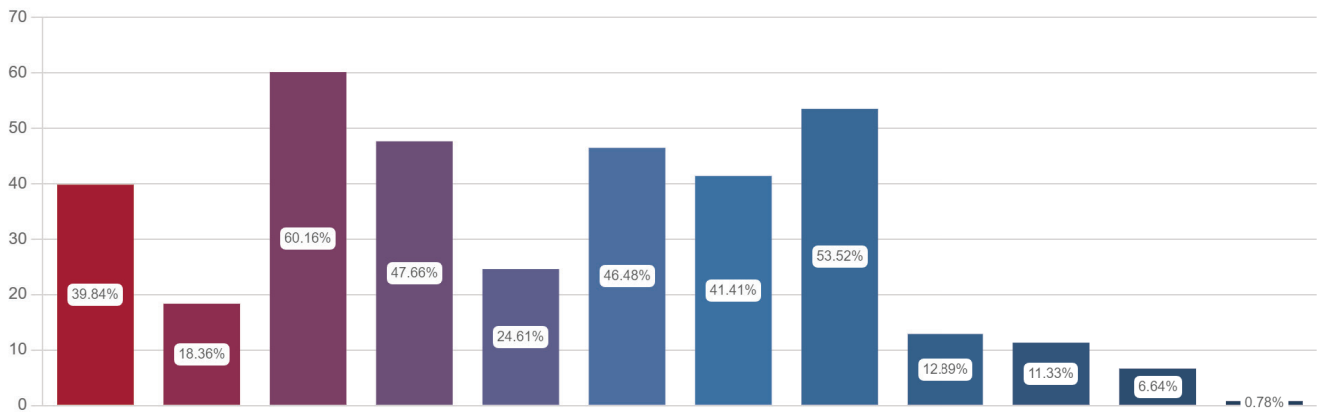
Websocket



Technology used

6.1. Elements occurring in the development process

As in the 2021 study, this time **the most frequently selected elements in the software development process are also Code Linting (60.16%), Code Review (53.52%) and Auto code formatter (47.66%).**

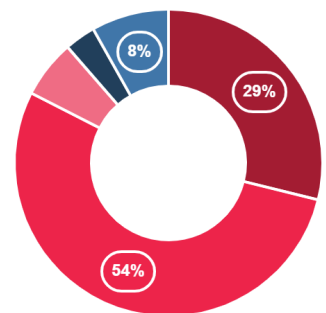


- containerization (e.g. Docker)
39.84 % ▼ (56,3 % in 2021)
- static code analysis (e.g. SonarQube))
18.36 % ▼ (27.2 % in 2021)
- code linting (e.g. TSLint, ESLint)
60.16 % ▼ (87.1 % in 2021)
- code auto-formatting (e.g. Prettier)
47.66 % ▼ (63 % in 2021)
- E2E tests
24.61 % ▼ (36.2 % in 2021)
- unit tests
46.48 % ▼ (56.7 % in 2021)
- branching model (e.g. git flow)
41.41 % ▼ (56.3 % in 2021)
- code review
53.52 % ▼ (80.8 % in 2021)
- semantic versioning
12.89 % ▼ (23.2 % in 2021)
- pair programming
11.33 % ▼ (24.6 % in 2021)
- TDD
6.64 % ▼ (13 % in 2021)
- other: BDD. Prettier with hotkeys
0.78 % ▼ (1.8 % in 2021)

6.2. Tests used in Angular applications

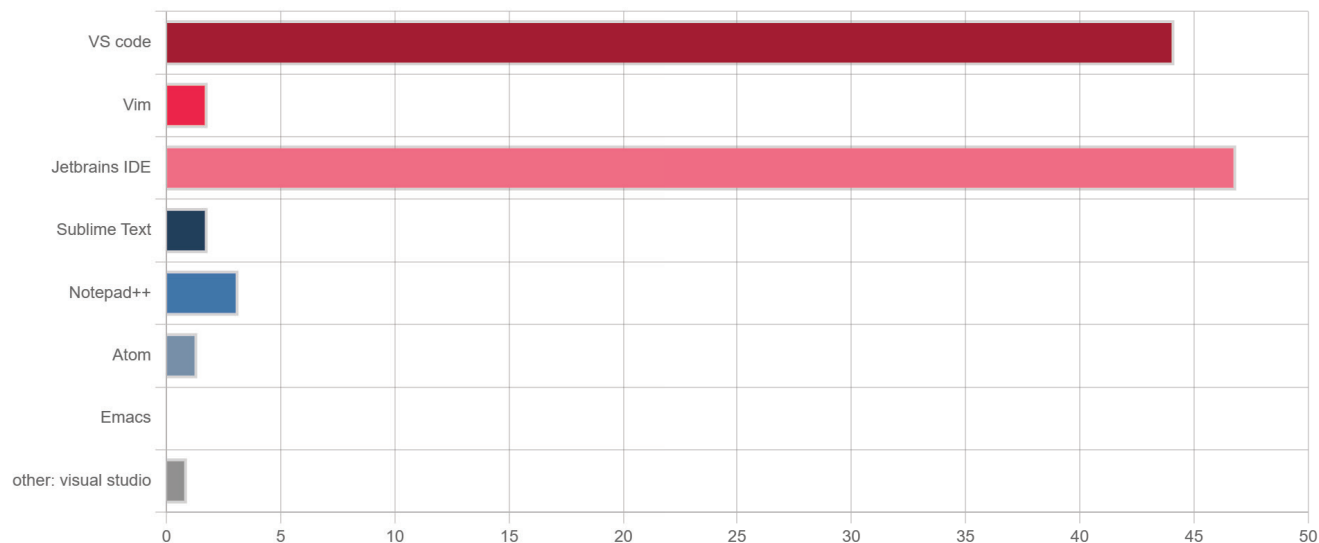
It turned out that **most programmers use unit tests – over 51%.** **E2E tests are also very popular** – according to almost 28% of respondents. Marble, contract, integration, manual, console.log and BDD tests are also used, to a much lesser extent.

- E2E
27.73 % ▼ (35.3 % in 2021)
- unit tests
51.56 % ▼ (69.6 % in 2021)
- Marble
5.86 % ▼ (11.6 % in 2021)
- contract tests
3.13 % ▼ (10.4 % in 2021)
- others: no tests, integration, manual, console.log, BDD
7.81 % ▼ (10.4 % in 2021)



6.3. IDE

However, in the case of the Integrated Development Environment, **the vast majority of Angular Developers use the IDE of JetBrains and Visual Studio Code** – over 72% in total. The remaining answers were seldom chosen.



● VS code
32.28 % ▼ (59.4 % in 2021)

● Vim
1.56 % ▼ (2.7 % in 2021)

● JetBrains IDE (WebStorm, PHP Storm, IntelliJ IDEA etc.)
40.63 % ▼ (58.5 % in 2021)

● Sublime Text
1.56 % ▲ (1.3 % in 2021)

● Notepad++
2.73 % ▼ (6.3 % in 2021)

● Atom
1.17 % ▲ (0.9 % in 2021)

● Emacs
0 % (0 % in 2021)

● other: visual studio
0.78 % ▼ (2.2 % in 2021)

Satisfaction

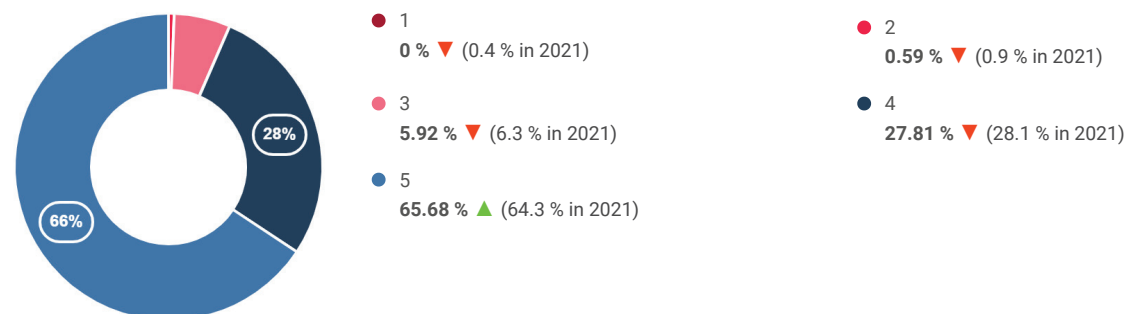
7.1. Level of satisfaction with Angular and willingness to continue working with it [on a scale from 1 to 5]

How happy are the developers using Angular? Almost **66% of them are completely satisfied and they want to continue working with it**. Over 27% indicated that they are very satisfied. Less than 7% marked their satisfaction as average or less than average. These results coincide more or less with the responses from the previous edition of the survey.

where:

1 – I am not satisfied, I plan to change the framework

5 – I am satisfied and will continue to work with it in the future



● 1
0 % ▼ (0.4 % in 2021)

● 2
0.59 % ▼ (0.9 % in 2021)

● 3
5.92 % ▼ (6.3 % in 2021)

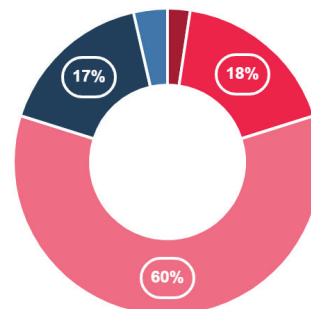
● 4
27.81 % ▼ (28.1 % in 2021)

● 5
65.68 % ▲ (64.3 % in 2021)

7.2. Level of satisfaction with Angular in the company

Last but not least, the question concerned the level of satisfaction using Angular in the company. Over 16.5% of the programmers agree that it's very good, and as many as 60% said that it is good, but it could be better. Almost 18% of the respondents revealed that they are not satisfied, but that they see the possibility of improvement.

- I am not satisfied, but I believe that it could be better, though I don't see any possibility for improvement
2.37 % ▼ (4.6 % in 2021)
- It is rather good, but it could be better
59.76 % ▲ (56 % in 2021)
- Other: we only have React in the company and I don't have anyone I could look up to and turn to for good models and examples. When I look at others when they write the code, I don't want to do anything better than they do, so it's hard to say – we are dispersed in various projects
3.55 % ▲ (1.4 % in 2021)
- I am not satisfied, but I can see the possibility of improvement
17.75 % ▲ (16.5 % in 2021)
- It's very good
16.57 % ▼ (21.5 % in 2021)



Thank you for your participation and involvement in the study of Angular's state in Poland for the second year in a row! 😊 We are glad that **this year's edition of our survey gathered almost as many opinions from Polish developers as the international State of JS** (330 people from Poland). We do not intend to slow down and as always, we encourage you to visit our blog and meet us at Angular Meetups organized and powered by House of Angular and Angular Warsaw.

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