Java Learning Topics 2018

In autumn 2018, JetBrains polled over 1,500 Java developers worldwide to identify their learning patterns and preferences. Here's what we've found.

In addition to survey results and insights, we've added some learning recommendations from experienced JetBrainers. May the drive to learn be with you!

Ekaterina Tuzova
Product Manager for Data Science IDE,
Team Lead in Edu Tools at JetBrains

Methodology

We distributed the survey via targeted ads on Facebook, Twitter, and LinkedIn and via company channels (panel respondents and the @intellijidea account in Twitter). We collected 400 complete and valid responses from the US, Germany, and UK via different advertising. The rest of the respondents were recruited from other countries via company channels.

Some bias is likely present because JetBrains users may have been more willing on average to complete the survey in advertising channels, and because we've included JetBrains followers in the sample.

The raw survey data are available for your perusal.

Key Takeaways

JavaScript

is the most frequently used second language among Java developers.

92%

of Java developers use an IDE as their most frequently used development tool.

26%

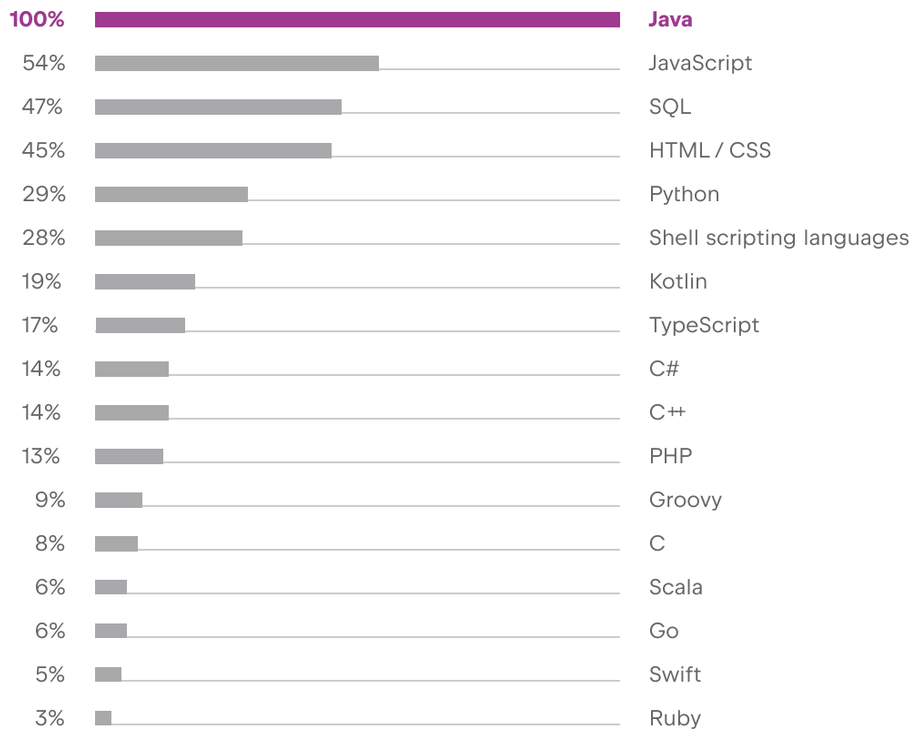
of Java developers are intending to move to a new industry.

Programming languages

Note this was a multiple-answer question.
The total may be greater than 100%.

What programming language(s) do you regularly use?

Number of answers: 1361



Coding games for beginners and advanced programmers on CheckiO are a great way to improve your JavaScript or Python skills!

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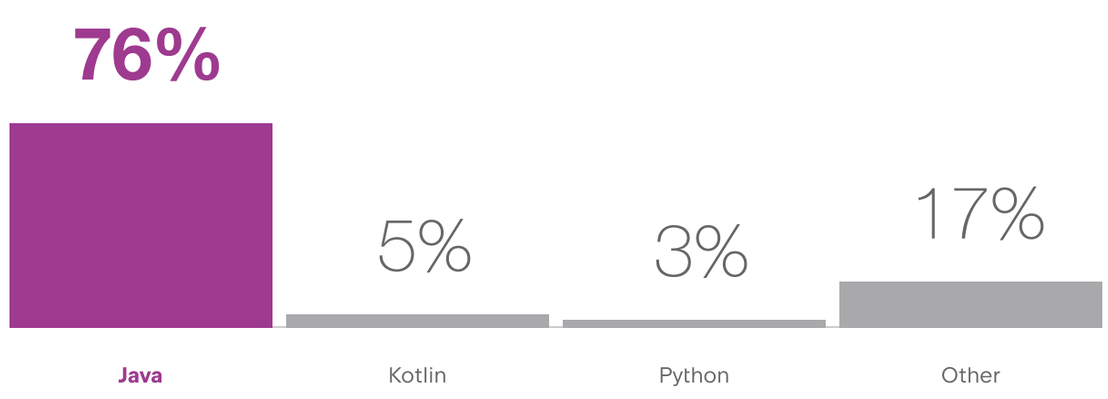
What is your main programming language?

Number of answers: 1361



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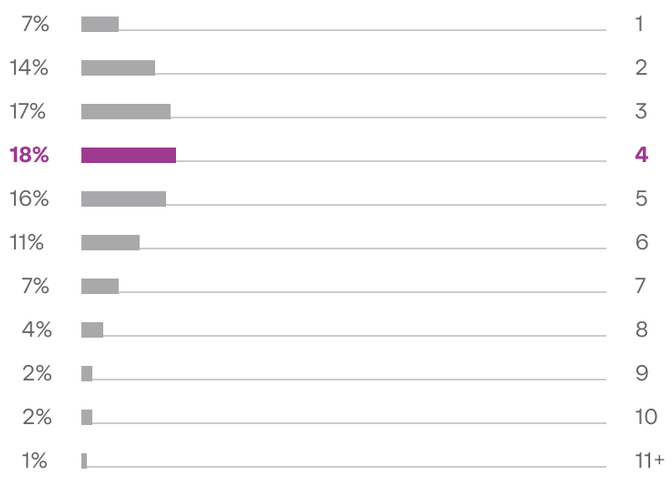
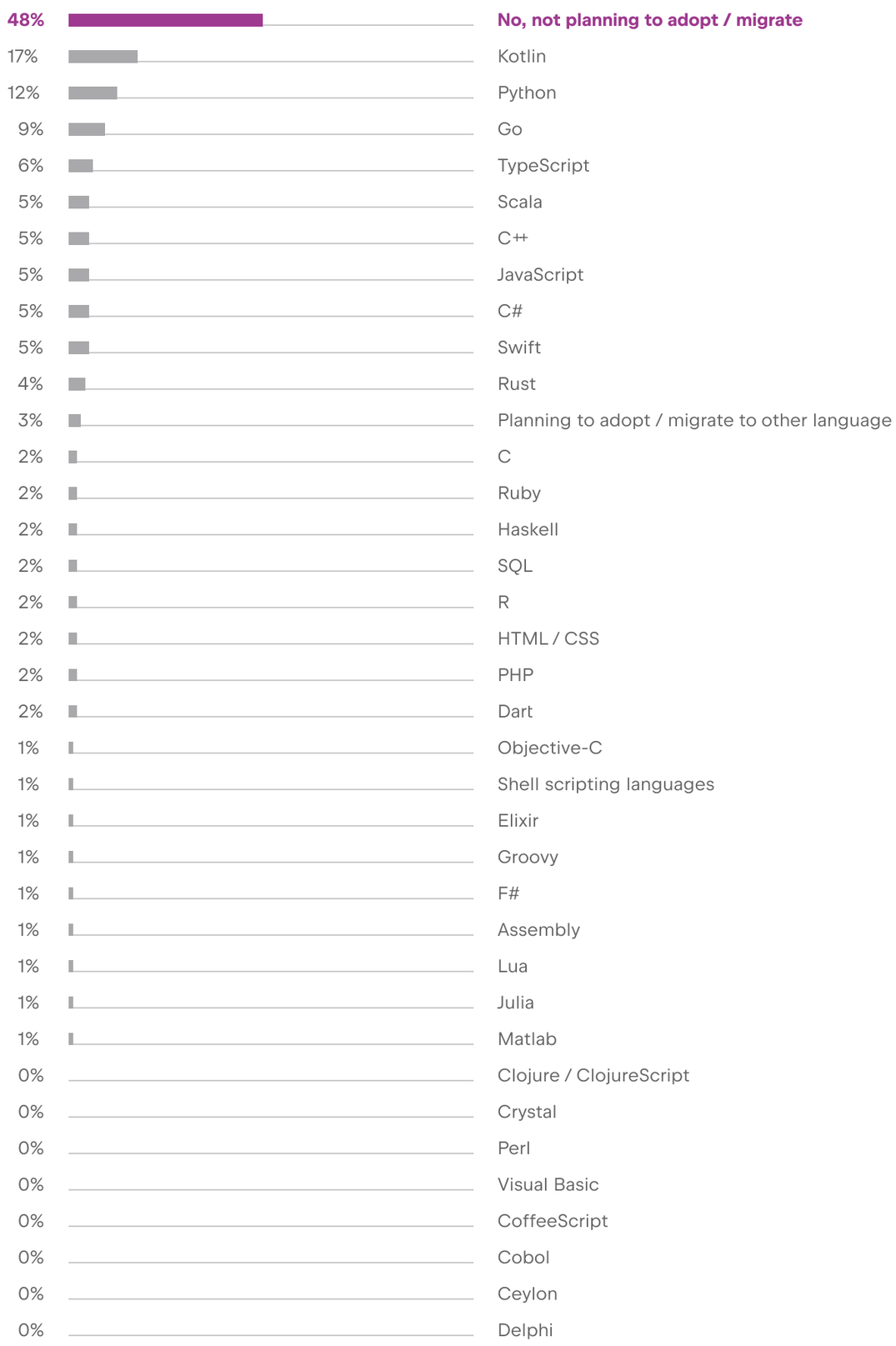
Number of languages used

Number of answers: 1361



Do you plan to adopt / migrate to any other language(s) in the next 12 months?

Number of answers: 1361



17% of Java developers plan to adopt/migrate to Kotlin. If you're one of them, check out JetBrains Kotlin courses.

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Product Manager for Data Science IDE, Team Lead in Edu Tools at JetBrains

Kotlin Koans

The Kotlin Koans course is a series of exercises specially designed to get you familiar with the Kotlin syntax.

Atomic Kotlin

Atomic Kotlin is the EAP book that explains Kotlin to both novices and experienced programmers with no prior Java experience required. The book is accompanied by the course – a set of code examples and small tasks with automatic checking and available answers.

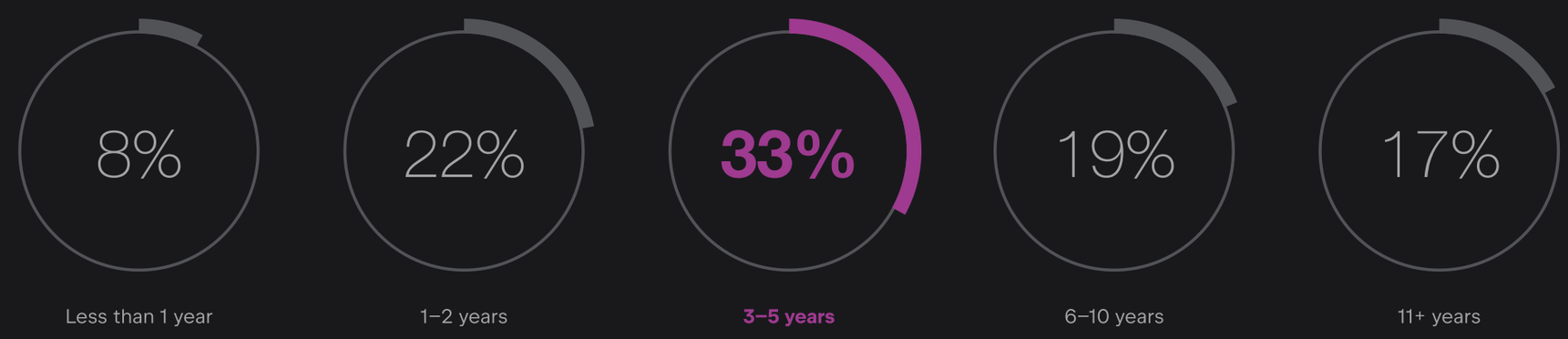
Kotlin for Java Developers

The Coursera course for experienced Java developers who want to learn the intricacies of Kotlin and its differences from Java. The course includes programming assignments to be solved using JetBrains Educational Products.

Java Background

How long have you been programming in Java?

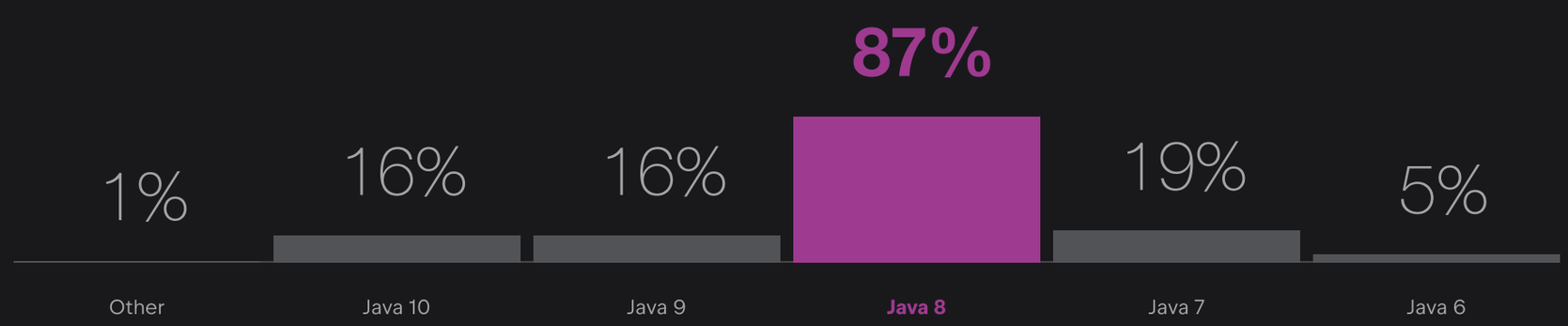
Number of answers: 1329



Note this was a multiple-answer question.
The total may be greater than 100%.

Which version(s) of Java do you regularly use?

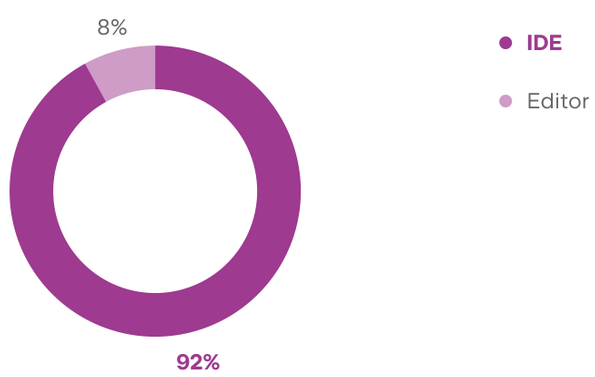
Number of answers: 1329



Working Environment

Most frequently used

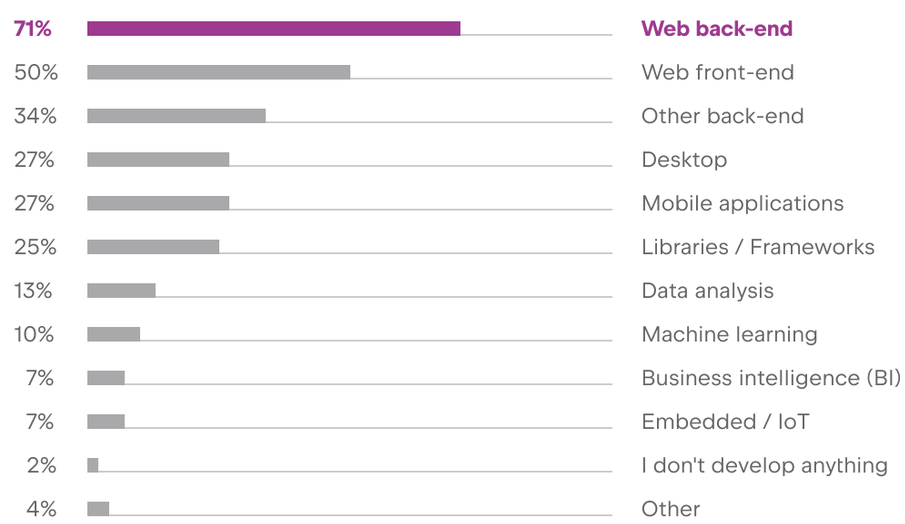
IDE vs Editor



Note this was a multiple-answer question.
The total may be greater than 100%.

What type(s) of applications do you develop?

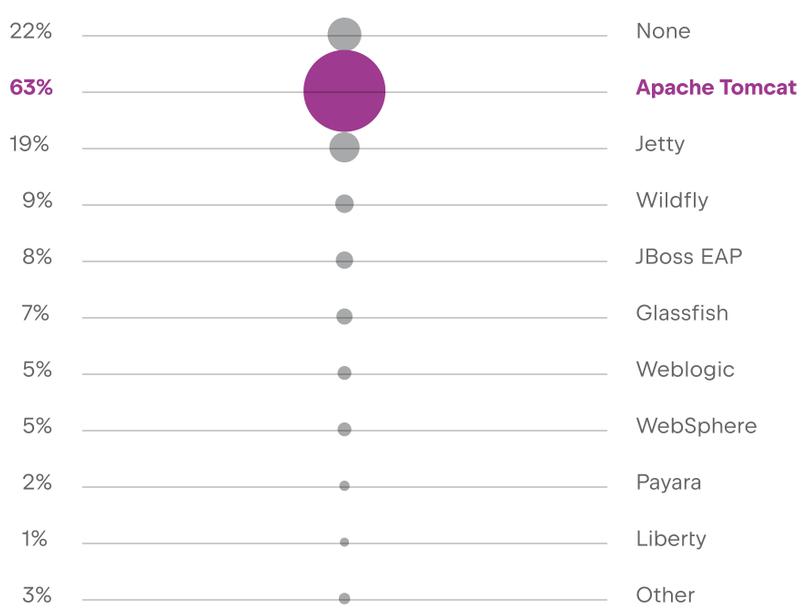
Number of answers: 1361



Note this was a multiple-answer question.
The total may be greater than 100%.

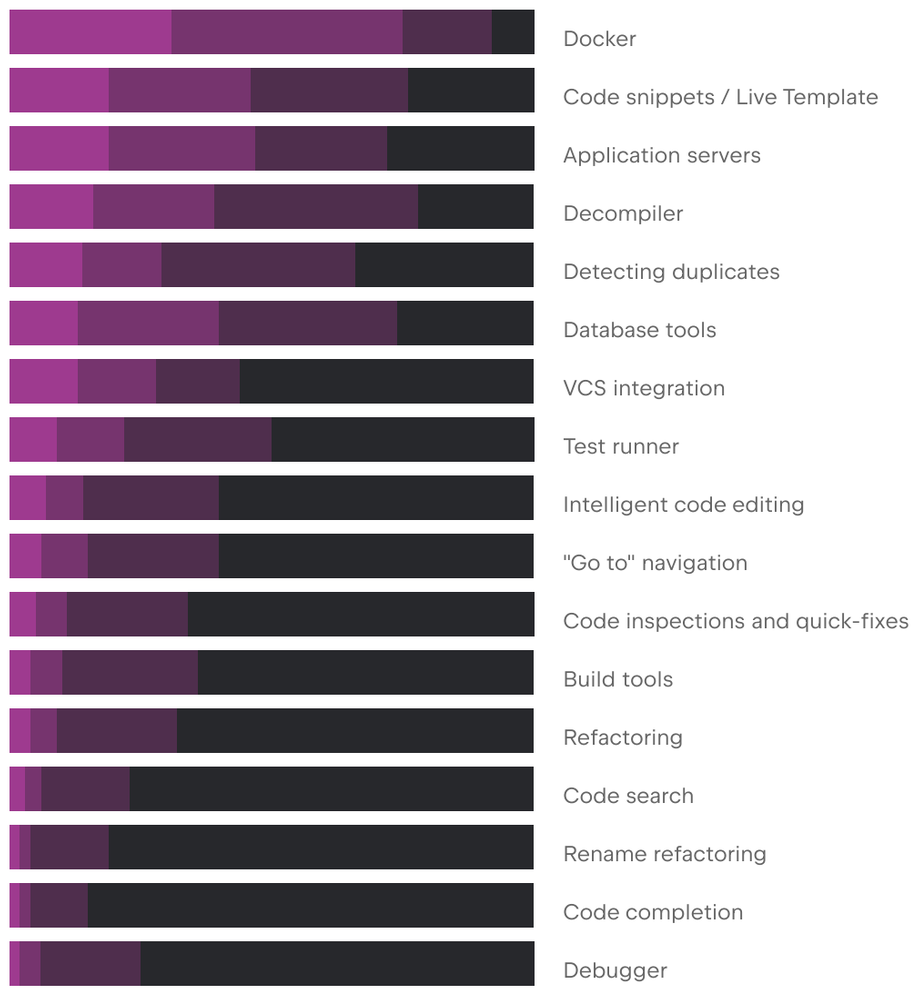
What application server(s) do you regularly use?

Number of answers: 1329



What IDE features do you use?

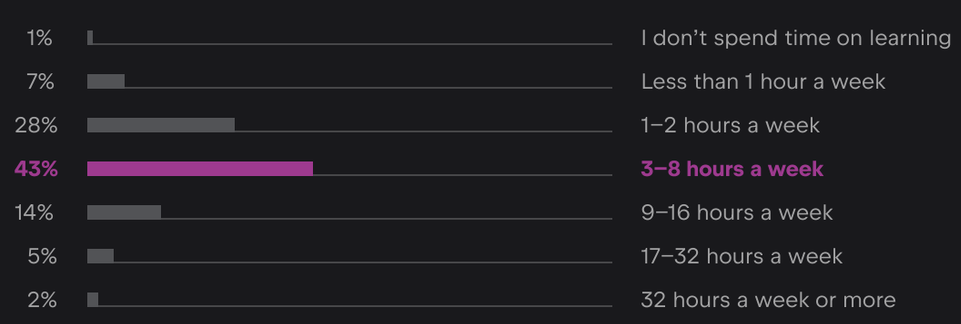
Number of answers: 1256



Learning patterns

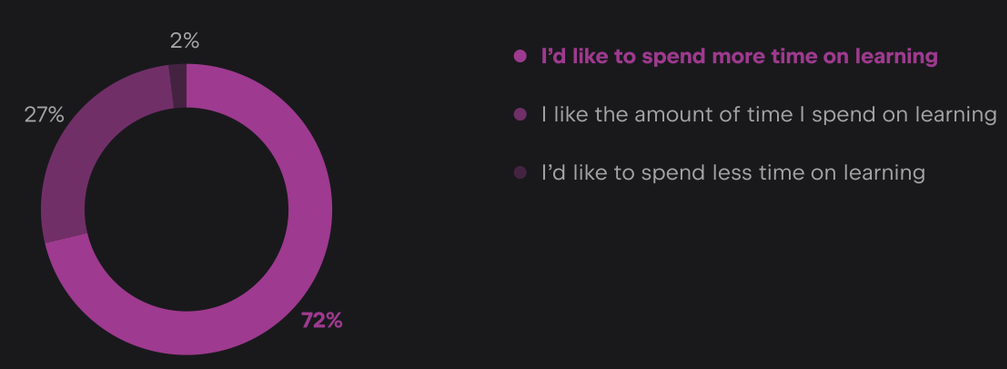
How much time per week do you spend on learning new tools / technologies / programming languages?

Number of answers: 1361



How do you feel about the time you spend on learning new tools / technologies / programming languages?

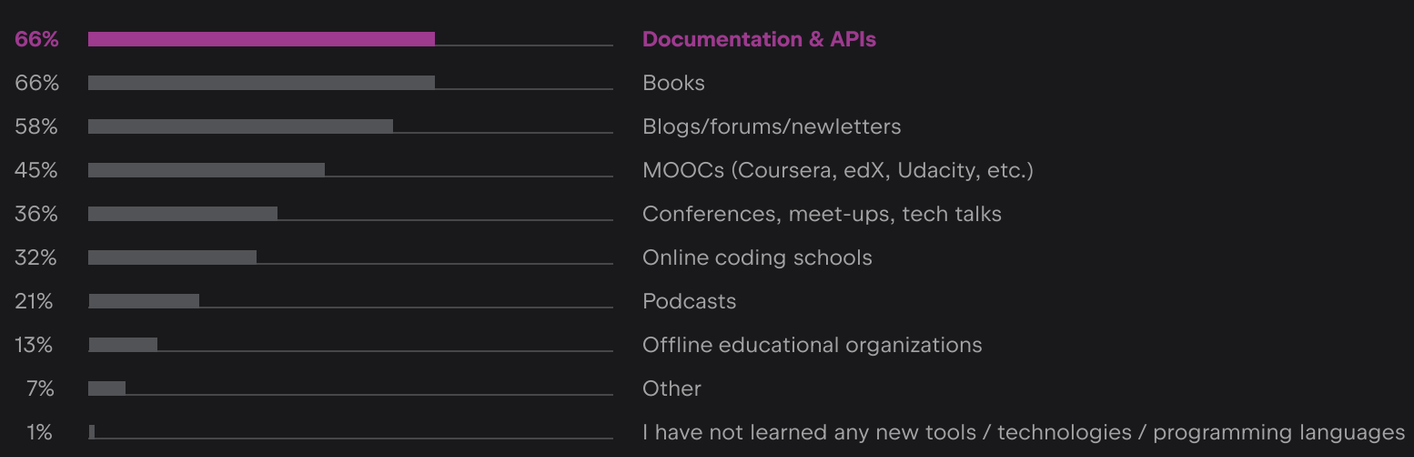
Number of answers: 1343



Note this was a multiple-answer question.
The total may be greater than 100%.

Which of the following have you used to learn new tools / technologies / programming languages?

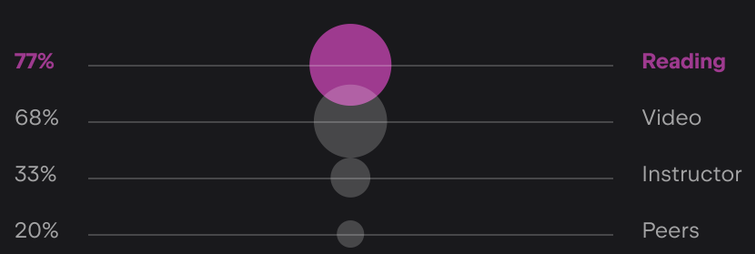
Number of answers: 1361

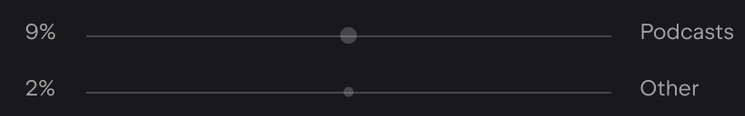


Note this was a multiple-answer question.
The total may be greater than 100%.

What kind of learning content do you prefer?

Number of answers: 1361

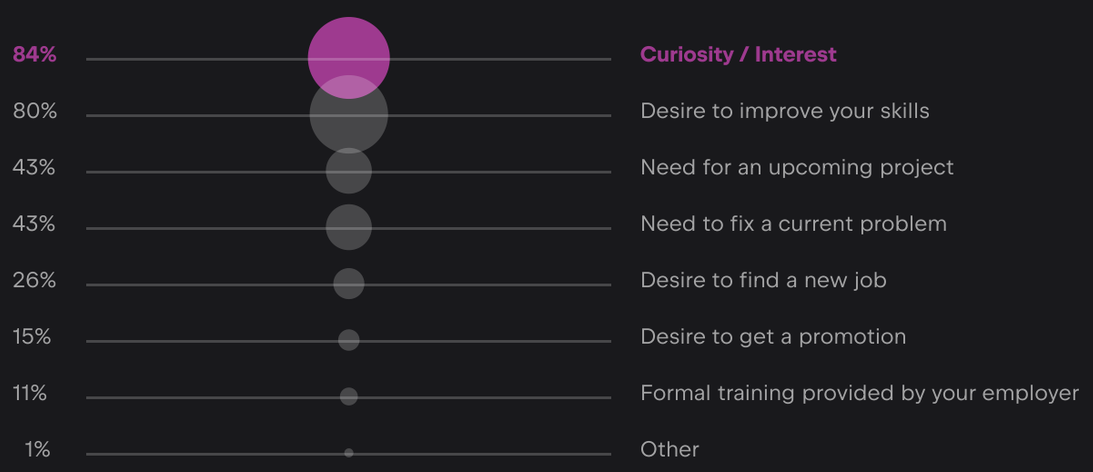




Note this was a multiple-answer question.
The total may be greater than 100%.

What usually motivates you to start learning new things?

Number of answers: 1361

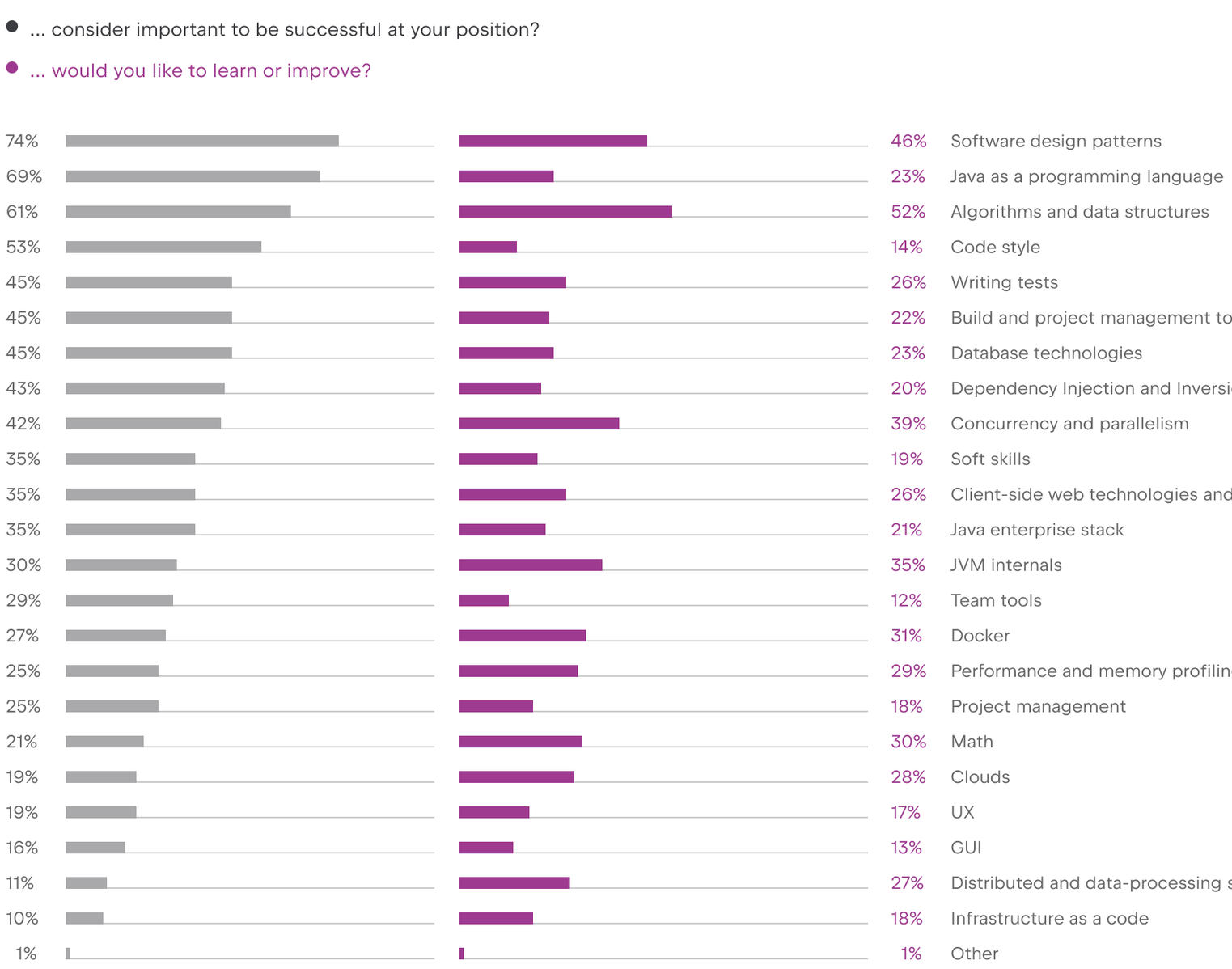


Skills and Knowledge

Note this was a multiple-answer question.
The total may be greater than 100%.

What skills and knowledge...

Number of answers: 1361

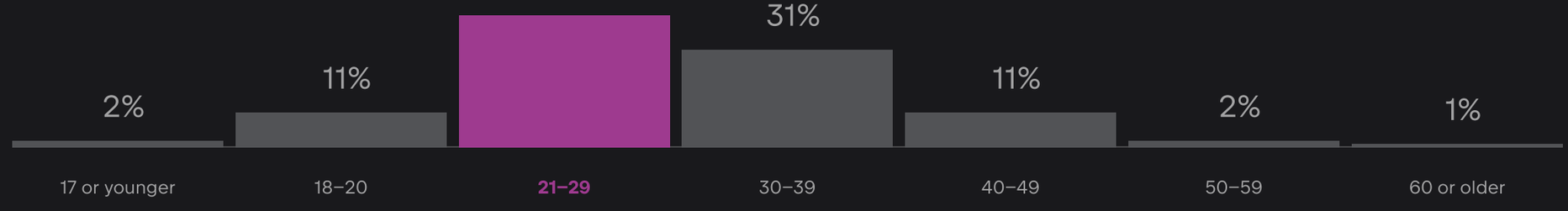


Demography

Could you tell us your age range?

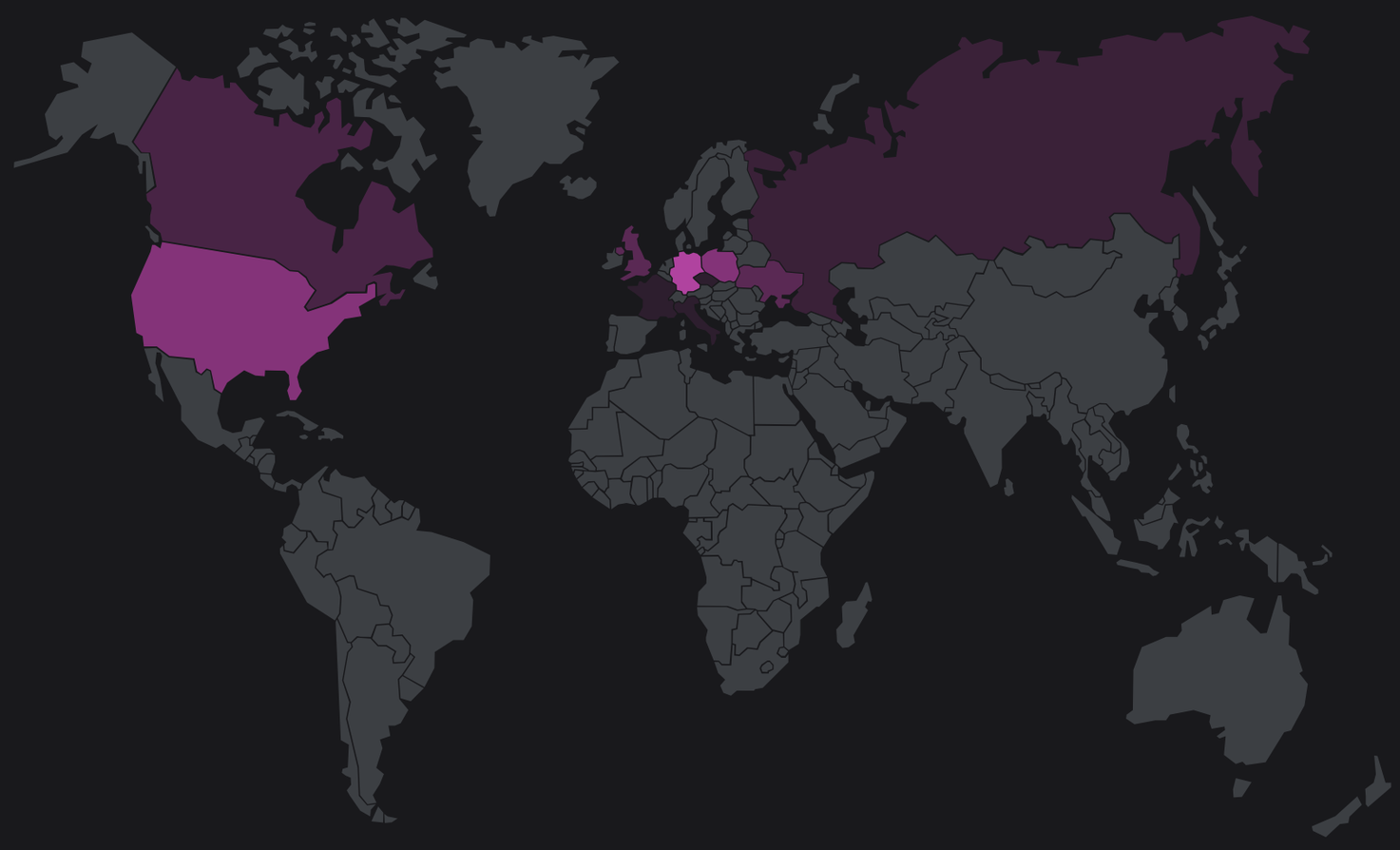
Number of answers: 1361

42%



What country do you live in?

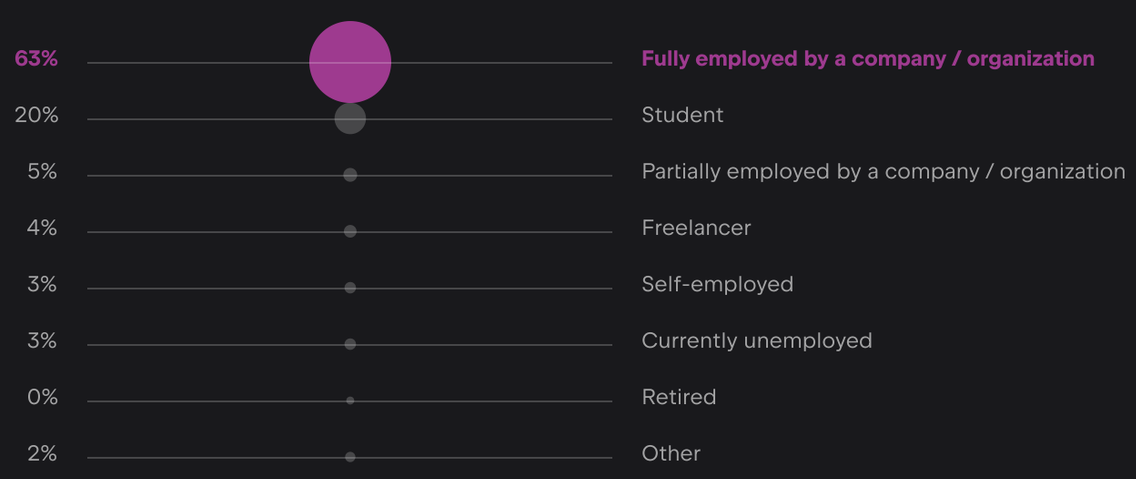
Number of answers: 1361



21%	Germany
13%	United States
8%	Poland
7%	United Kingdom
7%	Ukraine
4%	Canada
3%	Russia
2%	Italy
2%	Czech Republic
2%	France
30%	Others

What is your main employment status?

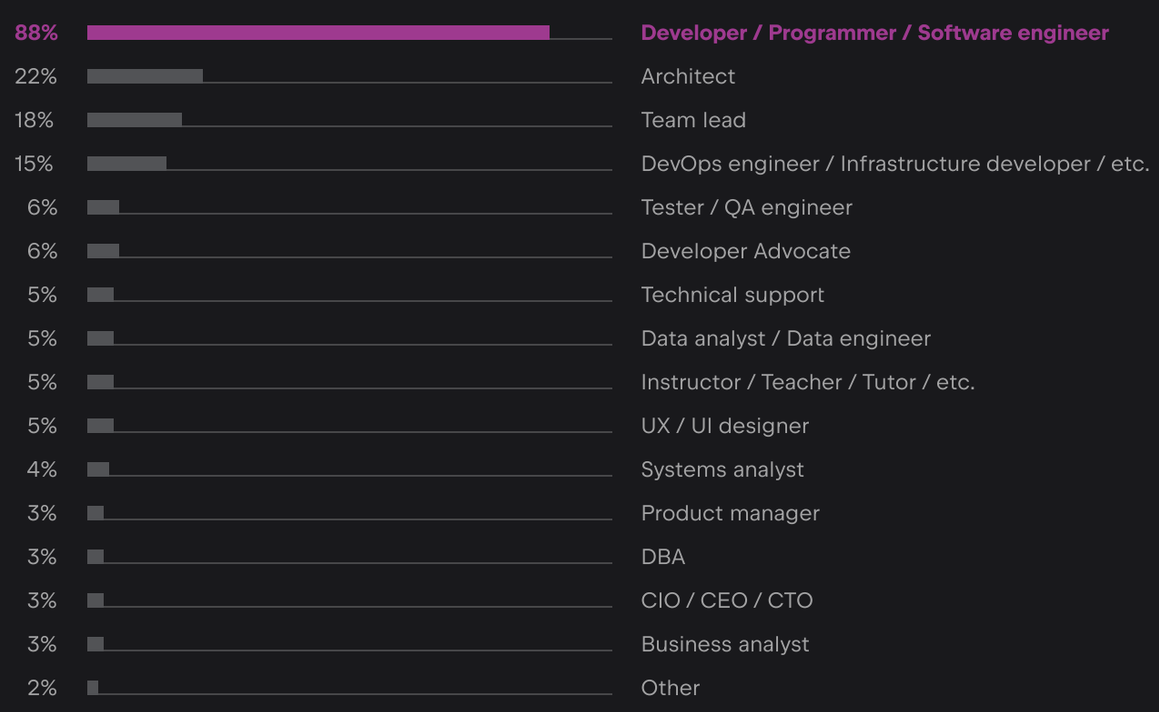
Number of answers: 1361



Note this was a multiple-answer question.
The total may be greater than 100%.

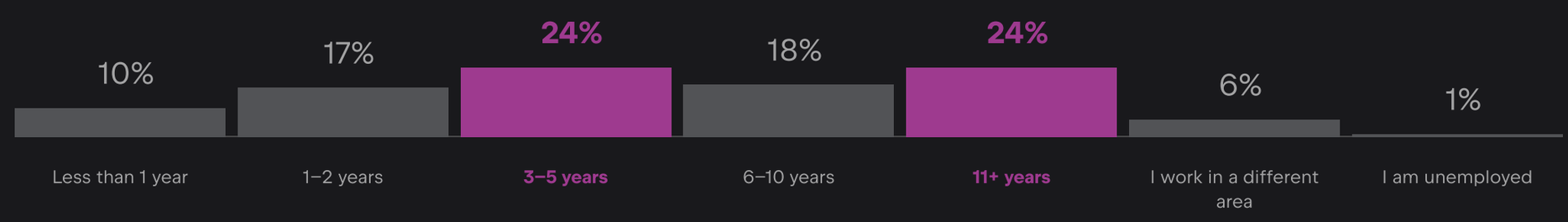
Which of the following best describes your job role(s) regardless of your position level?

Number of answers: 967



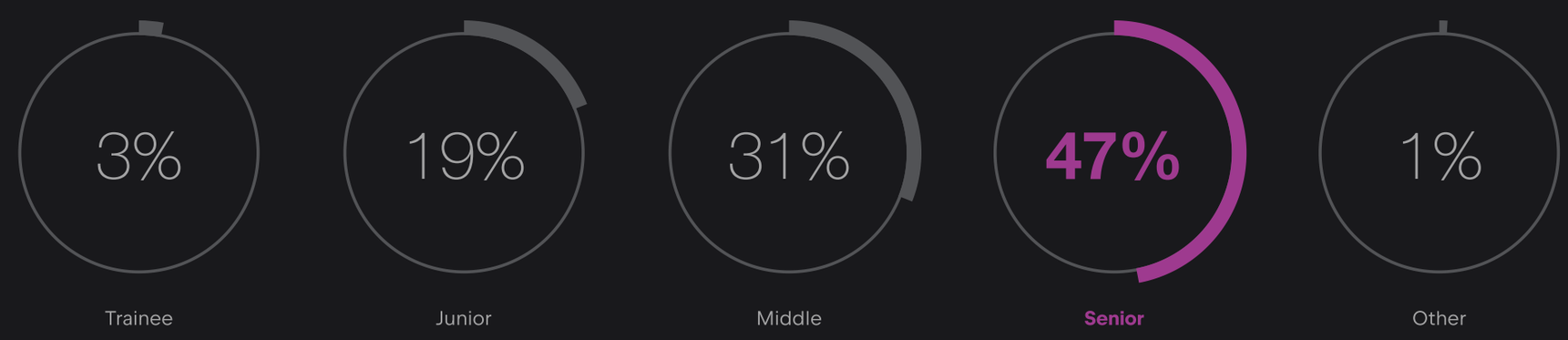
How long have you been working in IT?

Number of answers: 1361



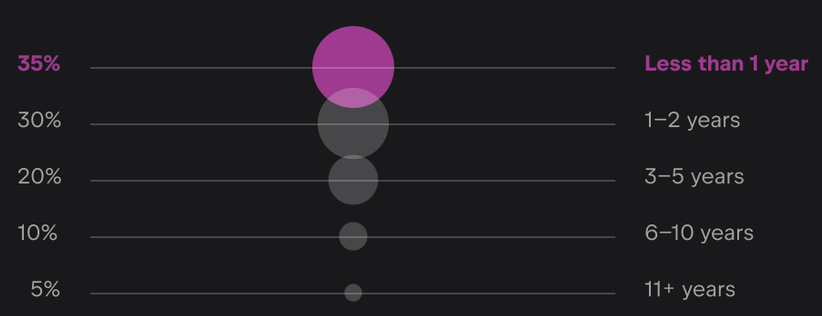
What is the level of your position?

Number of answers: 1059



How long have you held a management position?

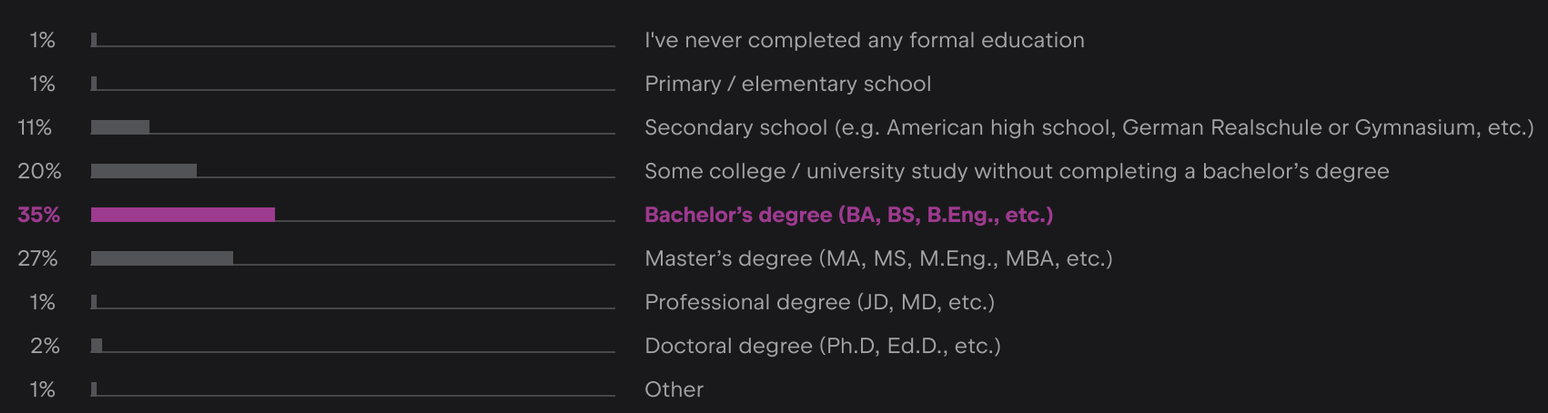
Number of answers: 214



Note this was a multiple-answer question.
The total may be greater than 100%.

Which of the following best describes the highest level of formal education that you've completed?

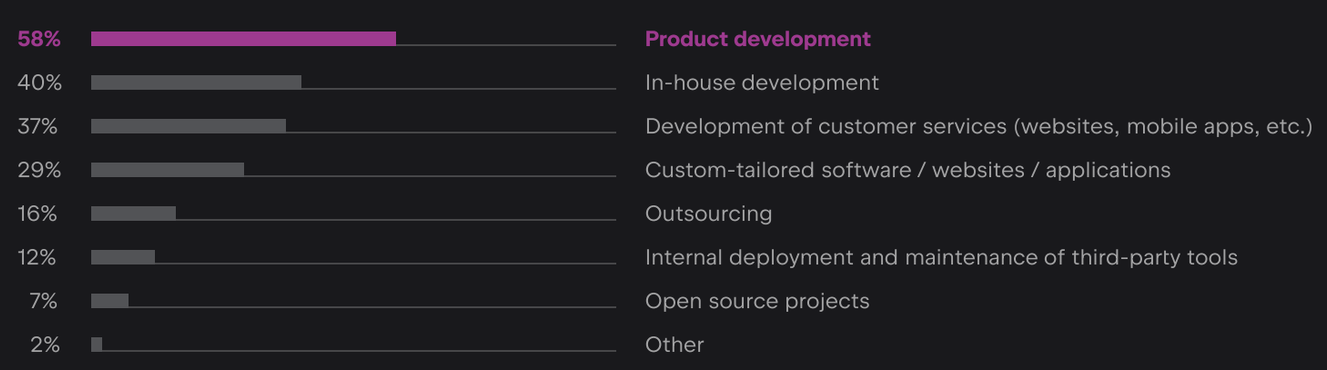
Number of answers: 1361



Note this was a multiple-answer question.
The total may be greater than 100%.

What kind of development does your company do?

Number of answers: 967

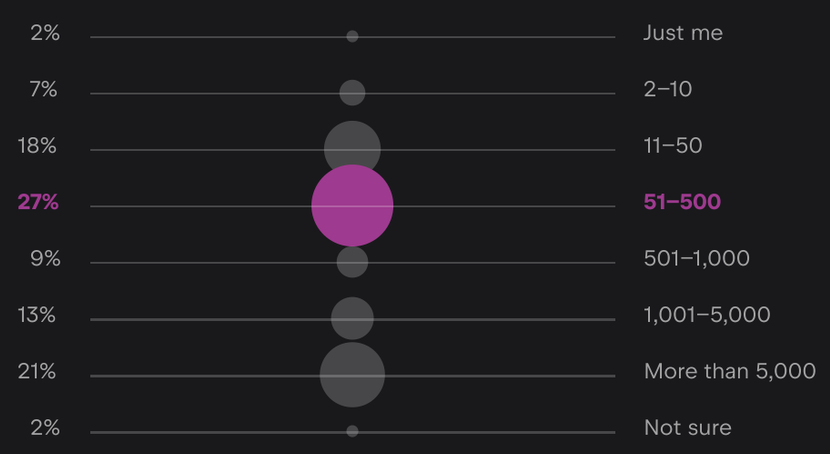


What is the total number of people that work for your company

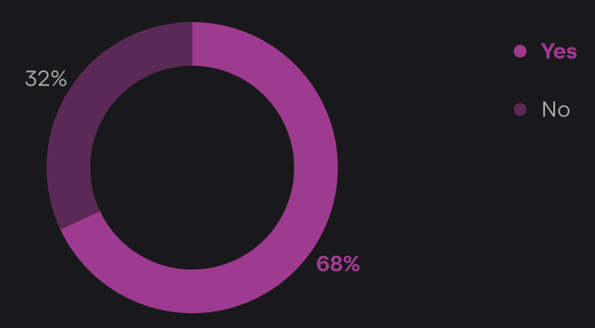
Is IT your company's core business?

/ organization?

Number of answers: 967



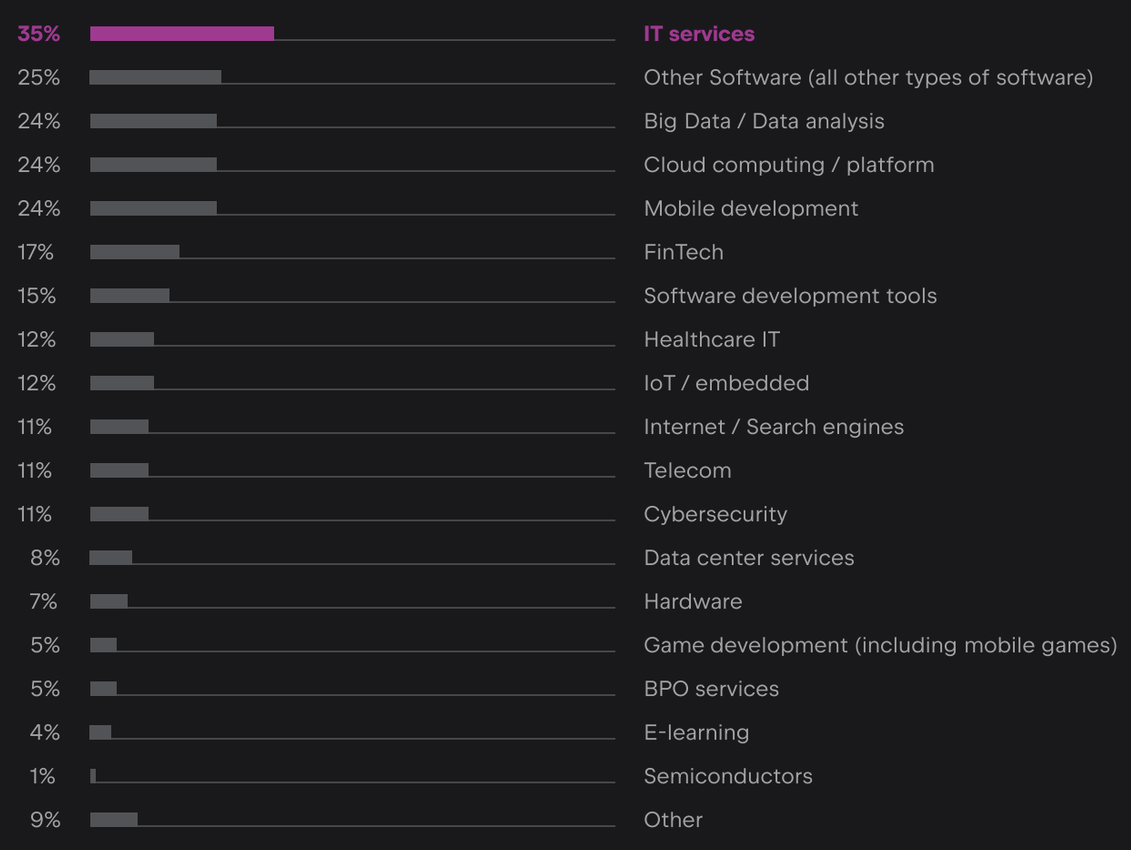
Number of answers: 967



Note this was a multiple-answer question.
The total may be greater than 100%.

In which of the following sectors is IT company primarily active?

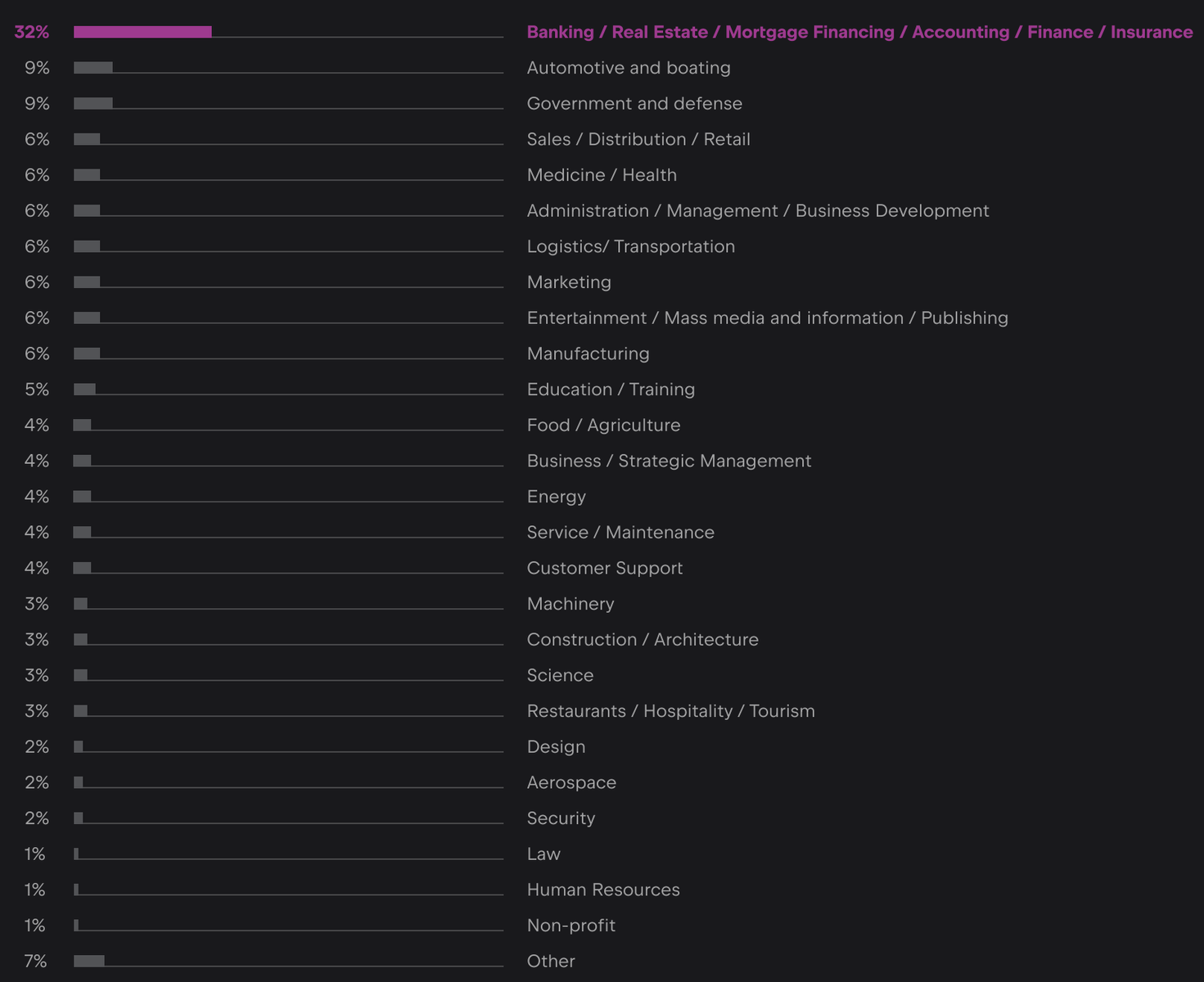
Number of answers: 659



Note this was a multiple-answer question.
The total may be greater than 100%.

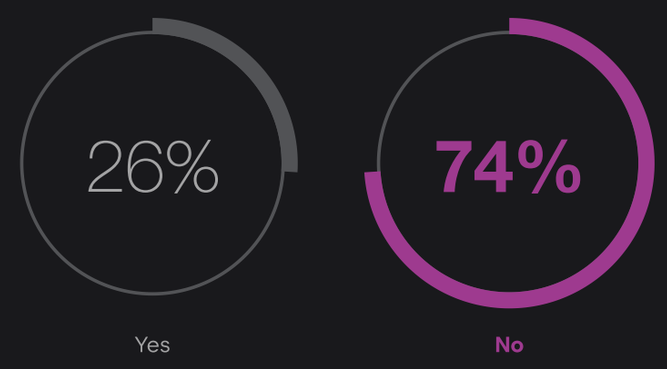
In which of the following sectors is non-IT company primarily active?

Number of answers: 350



Do you intend to move to a new industry?

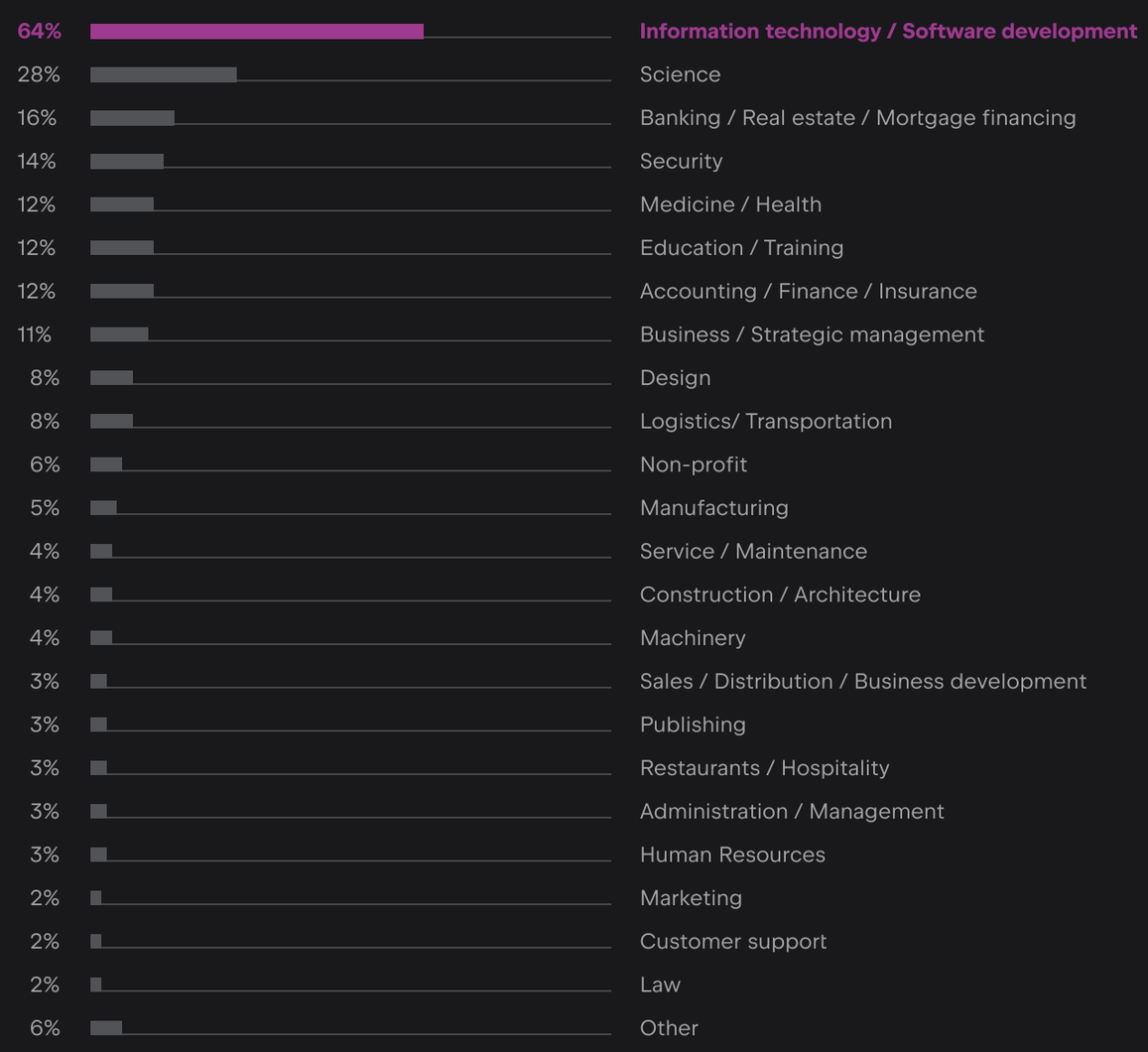
Number of answers: 967



Note this was a multiple-answer question.
The total may be greater than 100%.

Which of the following industries would you like to move to?

Number of answers: 250



JetBrains Academy

Begin a unique educational experience.

JetBrains Academy features a project-based Java learning platform that challenges learners to integrate computer science knowledge while completing real projects.

Ekaterina Tuzova
Product Manager for Data Science IDE,
Team Lead in Edu Tools at JetBrains

Build applications from scratch, improving them version by version as you learn more and more. Use professional tools to work on projects such as the special educational version of IntelliJ IDEA Community Edition.

Get ready to become a professional.

Learning Tips & tricks

1 Stay determined

Software development is an enormous area so the learning process might become tough just because of the amount of available information. Don’t take it too hard on yourself: you face difficulties because there’s so much to learn, not because you’re not smart enough. If you ever consider quitting, do it because you’re no longer interested. Otherwise, believe in yourself and keep going!

2 Begin with a project

I suggest to come up with a challenging project regardless of how impossible it might seem - automatic watering system, budgeting application, chatbot, etc.! An exciting task inspires you to learn and provides an excellent hands-on practice.

3 Self-reflect

While facing a complex topic, you might be tempted to skip it. Stay determined! Consider going through earlier themes to look for missing details. Otherwise, think about alternative solutions that may help you overcome difficulties.

4 Seek help

It's always OK to ask for advice from mentors while learning computer science (and even later when working in industry). An outsider's opinion is helpful to get around a challenge. Discussions with colleagues prompt you to come with a fresh way to fix a problem you wouldn't beat on your own.

5 Play

Try educational puzzles like CheckIO, CodinGame, and others. It's a good way to see algorithms in action—all while beating monsters and earning points.

6 Put together a portfolio

Every project you do is an excellent addition to the portfolio. Get familiar with version control systems and put your code out there. Your best resume is an active GitHub account.

Thank you for your time!

We hope you found our report useful.
Share this report with your friends and colleagues.

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If you have any questions or suggestions, please contact us at surveys@jetbrains.com.