

Welcome

Hello world!

Thank you for taking the 2020 Stack Overflow Developer Survey, the largest and most comprehensive survey of software developers (and anyone else who codes!) on Earth.

As in previous years, anonymized results of the survey will be made publicly available under the Open Database License, where anyone can download and analyze the data. On that note, throughout the survey, certain answers you and your peers give will be treated as personally identifiable information, and therefore kept out of the anonymized results file. We'll call out each of those in the survey with a note saying "This information will be kept private."

There are six sections in this survey. The 2nd, 3rd, and 4th sections will appear in a random order.

- 1. Basic Information
- 2. Education, Work, and Career
- 3. Technology and Tech Culture
- 4. Stack Overflow Usage + Community
- 5. Demographic Information
- 6. Final Os

Most questions in this survey are optional. Required questions are marked with *. The survey will take about 20 minutes to complete. We encourage you to complete it in one sitting.

If you use security or ad-blocking plugins, you may see error messages

Our third-party software provider, Qualtrics, does not work well with certain ad blockers and security software. To avoid error messages that prevent you from taking the survey, please try specifically unblocking Qualtrics in your plugin or pausing the plugin while you take the survey.

To begin, click **Next**.

Browser Meta Info

This question will not be displayed to the recipient.

Browser: **Chrome** Version: **83.0.4103.97**

Operating System: **Macintosh** Screen Resolution: **2560x1440**

Flash Version: -1
Java Support: 0

User Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10 15 3) AppleWebKit/537.36

(KHTML, like Gecko) Chrome/83.0.4103.97 Safari/537.36

Qualification

Basic Information

The first section will focus on some basic information about who you are.

Most questions in this section are required. Required questions are noted with *.

Which of the following options best describes you today? Here, by "developer" we mean "someone who writes code." *

C	I am a developer by profession
	I am not primarily a developer, but I write code sometimes as part of my work

I used to be a developer by profession, but no longer am
I am a student who is learning to code
○ I code primarily as a hobby○ None of these
O Notice of these
Do you code as a hobby? *
○ Yes
○ No
Which of the following best describes your current employment status?
Employed full-time
Employed part-time
Independent contractor, freelancer, or self-employed
Not employed, but looking for work
Not employed, and not looking for work
Student
Retired
I prefer not to say
Location
Where do you live? *
▼
In which state or territory of the USA do you live? This information will be kept
private.
<u> </u>

In which part of the United Kingdom do you live? This information will be kept private.
→
In which federal state do you live? This information will be kept private.
~
In which province or territory do you live? This information will be kept private.
→
In which department of France do you live? This information will be kept private.
~
In which city or town do you live? This information will be kept private.

2 - Education + Work + Career

Education, work, and career

This section will focus on your education, work, and career.

Most questions in this section are optional. Required questions are noted with *.

)	ou've completed?		
 I never completed any formal education Primary/elementary school Secondary school (e.g. American high school, German Realschule or Gymna 			
0	Some college/university study without earning a degree		
0	Associate degree (A.A., A.S., etc.)		
0	Bachelor's degree (B.A., B.S., B.Eng., etc.)		
0	Master's degree (M.A., M.S., M.Eng., MBA, etc.)		
0	Professional degree (JD, MD, etc.)		
0	Other doctoral degree (Ph.D., Ed.D., etc.)		
Other (please specify):			
١	What was your primary field of study?		
\cap	Computer science, computer engineering, or software engineering		
\mathcal{C}	Web development or web design		
\mathcal{C}	·		
\mathcal{C}	Information systems, information technology, or system administration		
\mathcal{C}	Mathematics or statistics Another engineering discipline (such as civil, electrical, mechanical, etc.)		
\sim	Another engineering discipline (such as civil, electrical, mechanical, etc.) A business discipline (such as accounting, finance, marketing, etc.)		
\sim	A health science (such as nursing, pharmacy, radiology, etc.)		
\sim	A humanities discipline (such as literature, history, philosophy, etc.)		
\sim	A natural science (such as biology, chemistry, physics, etc.)		
\sim	A social science (such as anthropology, psychology, political science, etc.)		
\sim	Fine arts or performing arts (such as graphic design, music, studio art, etc.)		
	I never declared a major		
	Other (please specify):		
\cup	Other (picase specify).		

Which of the following best describes the highest level of formal education that

,	science, to your career?
	Critically important Very important Fairly important Somewhat important Not at all important/not necessary
	f you could go back and change your educational path (but end up in the same career), what would you change?
	At what age did you write your first line of code or program? (e.g., webpage, Hello World, Scratch project)
((ncluding any education, how many years have you been coding in total?
	NOT including education, how many years have you coded professionally (as a part of your work)?
[~

How important is a formal education, such as a university degree in computer

\	Which of the following describe you? Please select all that apply.		
П	Academic researcher		
\sqcap	Data or business analyst		
$\overline{\Box}$	Data scientist or machine learning specialist		
	Database administrator		
	Designer		
	Developer, back-end		
	Developer, desktop or enterprise applications		
	Developer, embedded applications or devices		
	Developer, front-end		
	Developer, full-stack		
	Developer, game or graphics		
	Developer, mobile		
	Developer, QA or test		
	DevOps specialist		
	Educator		
	Engineer, data		
	Engineer, site reliability		
	Engineering manager		
	Marketing or sales professional		
	Product manager		
	Scientist		
	Senior Executive (C-Suite, VP, etc.)		
	System administrator		
	Other (please specify):		
_			
\	What industry or industries do you work in? This information will be kept private.		
[

t	the one you spend the most hours on.)
00000	Very dissatisfied Slightly dissatisfied Neither satisfied nor dissatisfied Slightly satisfied Very satisfied
	Approximately how many people are employed by the company or organization you currently work for?
0	Just me - I am a freelancer, sole proprietor, etc.
0	2 to 9 employees
0	10 to 19 employees
0	20 to 99 employees
0	100 to 499 employees
0	500 to 999 employees
0	1,000 to 4,999 employees
0	5,000 to 9,999 employees
0	10,000 or more employees
0	I don't know

* Which currency do you use day-to-day? If your answer is complicated, please

pick the one you're most comfortable estimating in.

How satisfied are you with your current job? (If you work multiple jobs, answer for

	AUD Australian dollar		
	AWG Aruban florin		
	AZN Azerbaijan manat		
	What is your current total compensation (salary, bon	uses, and perks, be	fore taxes
	and deductions), in \${q://QID50/ChoiceGroup/Select	•	
		•	
	enter a whole number in the box below, without any	•	•
	hourly, please estimate an equivalent weekly, month	y, or yearly salary.	lt you
	prefer not to answer, please leave the box empty.		
	Is that compensation weekly, monthly, or yearly?		
	Weekly		
	Monthly		
	Yearly		
_			
	On average how many hours not wook do you work	2 Diagos antor a vul	2010
	On average, how many hours per week do you work	? Please effici a wi	iole
	number in the box.		

How often do you work overtime or beyond the formal time expectation of your

AED United Arab Emirates dirham

ANG Netherlands Antillean guilder

AFN Afghan afghani ALL Albanian lek AMD Armenian dram

AOA Angolan kwanza ARS Argentine peso

job?

	Never Rarely: 1-2 days per year or less		
_	Occasionally: 1-2 days per quarter but less than monthly		
_			
_			
me	you think your company has a good onboarding process? (By onboarding, we ean the structured process of getting you settled in to your new role at a mpany)		
•			
	es		
	lo		
O_{c}	Onboarding? What onboarding?		
Н	ow could onboarding at your company be improved?		
Do	pes your company have a dedicated <u>DevOps</u> person?		
(Y	es e		
$\bigcup_{i} V_i$	lo		
Ŏ١	lot sure		
Нс	ow important is the practice of DevOps to scaling software development?		
_			
_	extremely important		
_	Somewhat important		
_	leutral		
_	lot very important		
\bigcup N	lot at all important		

1	Which of the following best describes your current job-seeking status? *		
000	I am actively looking for a job I'm not actively looking, but I am open to new opportunities I am not interested in new job opportunities		
I	In general, what drives you to look for a new job? Select all that apply.		
	Just because		
	Having a bad day (or week or month) at work		
	Wanting to share accomplishments with a wider network		
	Curious about other opportunities		
	Better compensation		
	Trouble with my teammates		
	Trouble with my direct manager		
	Trouble with leadership at my company		
	Better work/life balance		
	Wanting to work with new technologies		
	Growth or leadership opportunities		
	Looking to relocate		
	Other (please specify):		
•	When job searching, how do you learn more about a company? Select all that		
•	apply.		
\Box	Poad company modia, such as employee blogs or company culture videos		
	Read company media, such as employee blogs or company culture videos Company reviews from third party sites (e.g. Glassdeer, Blind)		
	Company reviews from third party sites (e.g. Glassdoor, Blind)		
	Publicly available financial information (e.g. Crunchbase)		
	Personal network - friends or family Pead other media like news articles, founder profiles, etc. about the company		
	Read other media like news articles, founder profiles, etc. about the company		
1 1	Directly asking current or past employees at the company		

	Other (please specify):		
b	nagine that you are deciding between two job offers with the same compensation, enefits, and location. Of the following factors, which 3 are MOST important to ou?		
	Remote work options		
	Office environment or company culture		
	Financial performance or funding status of the company or organization		
=	Opportunities for professional development		
	Diversity of the company or organization		
	How widely used or impactful my work output would be		
=	Industry that I'd be working in Specific department or team I'd be working on		
	Flex time or a flexible schedule		
	Languages, frameworks, and other technologies I'd be working with		
	Family friendliness		
3	- Tech and Tech Culture		
Т	ech and tech culture		
TI	ne next set of questions will focus on technology and tech culture.		
M	ost questions in this section are optional. Required questions are noted with *.		
Н	ow frequently do you learn a new language or framework?		
_	Every few months Once a year		

0	Once every few years	
0	Once a decade	
0		Other (please specify):
		-

Which **programming, scripting, and markup languages** have you done extensive development work in over the past year, and which do you want to work in over the next year? (If you both worked with the language and want to continue to do so, please check both boxes in that row.)

	Worked with in PAST year	Want to work with NEXT year
Assembly		
Bash/Shell/PowerShell		
С		
C#		
C++		
Dart		
Go		
Haskell		
HTML/CSS		
Java		
JavaScript		
Julia		
Kotlin		
Objective-C		
Perl		
PHP		
Python		
R		

	Worked with in PAST year	Want to work with NEXT year
Ruby		
Rust		
Scala		
SQL		
Swift		
TypeScript		
VBA		
Other (please specify):		
Which database environments over the past year, and which do both worked with the database boxes in that row.)	o you want to work in ov and want to continue to	er the next year? (If you do so, please check both
	Worked with in PAST year	Want to work with NEXT year
Cassandra		
Couchbase		
Couchbase DynamoDB		
DynamoDB		
DynamoDB Elasticsearch		
DynamoDB Elasticsearch Firebase		
DynamoDB Elasticsearch Firebase IBM DB2		
DynamoDB Elasticsearch Firebase IBM DB2 MariaDB		

Oracle

	Worked with in PAST year	Want to work with NEXT year
PostgreSQL		
Redis		
SQLite		
Other (please specify):		
Which platforms have you o	•	
year, and which do you want	•	· •
with the platform and want to row.)	continue to do so, please	cneck both boxes in that
10W.)		
	Worked with in PAST year	Want to work with NEXT year
Android		
Arduino		
AWS		
Docker		
Google Cloud Platform		
Heroku		
IBM Cloud or Watson		
iOS		
Kubernetes		
Linux		
MacOS		
Microsoft Azure		
Raspberry Pi		
Slack Apps and Integrations		
Windows		

	Worked with in PAST year	Want to work with NEXT year		
WordPress				
Other (please specify):				
Which web frameworks have you done extensive development work in over the past year, and which do you want to work in over the next year? (If you both worked with the framework and want to continue to do so, please check both boxes in that row.)				
	Worked with in PAST year	Want to work with NEXT year		
Angular				
Angular.js				
ASP.NET				
ASP.NET Core				
Django				
Drupal				
Express				
Flask				
Gatsby				
jQuery				
Laravel				
React.js				
Ruby on Rails				
Spring				
Symfony				
Vue.is	П	П		

Other (please specify):				
Which other frameworks, libraries, and tools have you done extensive development work in over the past year, and which do you want to work in over the next year? (If you both worked with the framework and want to continue to do so, please check both boxes in that row.)				
	Worked with in PAST year	Want to work with NEXT year		
.NET				
.NET Core				
Ansible				
Apache Spark				
Chef				
Cordova				
Flutter				
Hadoop				
Keras				
Node.js				
Pandas				
Puppet				
React Native				
TensorFlow				
Terraform				
Torch/PyTorch				
Unity 3D				
Unreal Engine		П		

Worked with in PAST year

Want to work with NEXT year

	Worked with in PAST year	Want to work with NEXT year
Xamarin		
Other (please specify):		
Which collaboration tools ha past year, and which do you w with the tool and want to contin	ant to work in over the ne	xt year? (If you worked
	Worked with in PAST year	Want to work with NEXT year
Confluence		
Jira		
GitHub		
GitLab		
Facebook Workplace		
Slack		
Microsoft Teams		
Microsoft Azure		
Trello		
Google Suite (Docs, Meet, etc)		
Stack Overflow for Teams		
Other (please specify):		
What is the primary operating s Linux-based Windows	system in which you work	?

\cup	MacOS
\bigcirc	BSD
0	Other (please specify):
١	What level of influence do you, personally, have over new technology purchases at
	your organization?
0	I have a great deal of influence
Ō	I have little or no influence
$\tilde{\bigcirc}$	I have some influence
١	When buying a new tool or software, how do you discover and research available
	solutions? Select all that apply.
	Start a free trial
	Ask developers I know/work with
	Visit developer communities like Stack Overflow
	Read ratings or reviews on third party sites like G2Crowd
	Research companies that have advertised on sites I visit
$\overline{\Box}$	Research companies that have emailed me
\Box	Other (please specify):
_	
,	What do you do whon you got stuck on a problem? Soloct all that apply
'	What do you do when you get stuck on a problem? Select all that apply.
	Call a coworker or friend
	Visit Stack Overflow
$\overline{\sqcap}$	Watch help / tutorial videos
\Box	Panic
\Box	
	Watch help / tutorial videos

	Play games
	Visit another developer community (please name):
	Other (please specify):
	You search for a coding solution online and the first result link is purple because
	you already visited it. How do you feel?
0	Amused
0	Annoyed
0	Indifferent
0	Hello, old friend
4	I - Stack Community
(Stack Overflow - usage and community
;	Stack Overflow - usage and community
	Stack Overflow - usage and community This section will focus on Stack Overflow usage and community questions.
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-	This section will focus on Stack Overflow usage and community questions.
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-	This section will focus on Stack Overflow usage and community questions. Most questions in this section are optional. Required questions are noted with *.
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-	This section will focus on Stack Overflow usage and community questions. Most questions in this section are optional. Required questions are noted with *. Which of the following Stack Overflow sites have you visited? Select all that apply. Stack Overflow (public Q&A for anyone who codes) Stack Exchange (public Q&A for a variety of topics) Stack Overflow Jobs (for job seekers)
-	This section will focus on Stack Overflow usage and community questions. Most questions in this section are optional. Required questions are noted with *. Which of the following Stack Overflow sites have you visited? Select all that apply. Stack Overflow (public Q&A for anyone who codes) Stack Exchange (public Q&A for a variety of topics) Stack Overflow Jobs (for job seekers) Stack Overflow for Teams (private Q&A for organizations)

Н	ow frequently would you say you visit Stack Overflow?
0000	I have never visited Stack Overflow (before today) Less than once per month or monthly A few times per month or weekly A few times per week Daily or almost daily Multiple times per day
D	o you have a Stack Overflow account?
O ,	Yes
0 1	No
O 1	Not sure/can't remember
	low frequently would you say you participate in Q&A on Stack Overflow? By articipate we mean ask, answer, vote for, or comment on questions.
\bigcirc I	I have never participated in Q&A on Stack Overflow
Οı	Less than once per month or monthly
Ö	A few times per month or weekly
0	A few times per week
\bigcirc I	Daily or almost daily
O 1	Multiple times per day
D	o you consider yourself a member of the Stack Overflow community?
O 1	No, not at all
0 1	No, not really
0 1	Neutral
O ,	Yes, somewhat
O ,	Yes, definitely

Please elaborate on your ans member of Stack Overflow's o	•	tion (seeing yourself as a
		//
Are you a member of any other	er online developer comr	nunities?
) Yes		
) No		
Please name up to 5 other on indicate whether they are pub	·	
	Public - Anyone can join	Private - Invitation required to join
Online community 1:	0	0
Online community 2:	0	0
Online community 3:	0	0
Online community 4:	0	0

O Not sure

What would you like to be able to ask on Stack Overflow (that you can't ask currently)?

Do you think Stack Overflow should relax restrictions on what is considered "off-topic"?	
YesNoNot sure	
Demographics	
Demographics	
All questions in this section are optional. As a reminder, all reporting of the survey responses with be anonymized.	ill
What is your age (in years)? If you prefer not to answer, you may leave this question blank.	
Which of the following describe you, if any? Please check all that apply. If you prefer not to answer, you may leave this question blank.	
☐ Woman	
ManNon-binary, genderqueer, or gender non-conforming	
Or, in your own words:	

	Prefer not to say
ı	Are you transgender?
0	Yes
0	No
0	Or, in your own words:
0	Prefer not to say
	Which of the following describe you, if any? Please check all that apply. If you prefer not to answer, you may leave this question blank.
	Bisexual
	Gay or Lesbian
	Straight / Heterosexual
	Queer
	Or, in your own words:
	Prefer not to say
	Which of the following describe you, if any? Please check all that apply. If you prefer not to answer, you may leave this question blank.
	Black or of African descent
	East Asian
	Hispanic or Latino/a/x
	Middle Eastern
	White or of European descent
	Biracial
	Indigenous (such as Native American, Pacific Islander, or Indigenous Australian)
	South Asian
	Multiracial

	Southeast Asian
	I don't know
	Prefer not to say
	Or, in your own words:
	<u> </u>
V	Which of the following describe you, if any? Please check all that apply. If you
	refer not to answer, you may leave this question blank.
P	Total file to an enterior, year many real control que enterior and an enterior
	I am blind / have difficulty seeing
	I am deaf / hard of hearing
	I am unable to / find it difficult to type
	I am unable to / find it difficult to walk or stand without assistance
	Prefer not to say
	None of the above
	Or, in your own words:
٧	Which of the following describe you, if any? Please check all that apply. If you
	refer not to answer, you may leave this question blank.
'	
	I have a concentration and/or memory disorder (e.g. ADHD)
	I have a mood or emotional disorder (e.g. depression, bipolar disorder)
	I have an anxiety disorder
	I have autism / an autism spectrum disorder (e.g. Asperger's)
	Prefer not to say
	None of the above
	Or, in your own words:

FinalThoughtsSurveyReview

Final Questions

You're almost done!	
How do you feel about the length of the survey this year? Too short Appropriate in length Too long	
How easy or difficult was this survey to complete? Easy Neither easy nor difficult Difficult	
Any final thoughts you'd like to share?	
Any final thoughts you'd like to share?	

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