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**Welcome**

**Hello world!**

Thank you for taking the 2021 Stack Overflow Developer Survey, the longest running 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 Questions

Most questions in this survey are optional. Required questions are marked with \*. This anonymous survey will take about 10 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**

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To begin, click **Next.**

**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." **\***

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

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

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Not employed, and not looking for work

Student, full-time

Student, part-time

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.*

In which part of the United Kingdom 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 \*.

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Which of the following best describes the highest level of formal education that you’ve completed? \*

Primary/elementary school

Secondary school (e.g. American high school, German Realschule or Gymnasium, etc.) Some college/university study without earning a degree

Associate degree (A.A., A.S., etc.)

Bachelor’s degree (B.A., B.S., B.Eng., etc.)

Master’s degree (M.A., M.S., M.Eng., MBA, etc.)

Professional degree (JD, MD, etc.)

Other doctoral degree (Ph.D., Ed.D., etc.)

Something else

At what age did you write your first line of code or program? (e.g., webpage, Hello World, Scratch project)

Younger than 5 years

5 - 10 years

11 - 17 years

18 - 24 years

25 - 34 years

35 - 44 years

45 - 54 years

55 - 64 years

Older than 64 years

How did you learn to code? Select all that apply.

Books / Physical media

Coding Bootcamp

Friend or family member

Colleague

Online Courses or Certification

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Online Forum

Other online resources (ex: videos, blogs, etc)

School

Other (please specify):

Including 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)?

Which of the following describes your current job? Please select all that apply.

Academic researcher

Data or business analyst

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

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Engineer, site reliability

Engineering manager

Marketing or sales professional

Product manager

Scientist

Senior Executive (C-Suite, VP, etc.)

Student

System administrator

Other (please specify):

Approximately how many people are employed by the company or organization you currently work for?

Just me - I am a freelancer, sole proprietor, etc.

2 to 9 employees

10 to 19 employees

20 to 99 employees

100 to 499 employees

500 to 999 employees

1,000 to 4,999 employees

5,000 to 9,999 employees

10,000 or more employees

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. \*

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AED United Arab Emirates dirham

AFN Afghan afghani

ALL Albanian lek

AMD Armenian dram

ANG Netherlands Antillean guilder

AOA Angolan kwanza

ARS Argentine peso

AUD Australian dollar

AWG Aruban florin

AZN Azerbaijan manat

What is your current total compensation (salary, bonuses, and perks, before taxes and deductions), in ${q://QID50/ChoiceGroup/SelectedChoicesTextEntry}? Please enter a whole number in the box below, without any punctuation. If you are paid hourly, please estimate an equivalent weekly, monthly, or yearly salary. If you prefer not to answer, please leave the box empty.

Is that compensation weekly, monthly, or yearly?

Weekly

Monthly

Yearly

**3 - Tech and Tech Culture**

**Tech and tech culture**

The next set of questions will focus on technology and tech culture.

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

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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

APL

Assembly

Bash/Shell

C

C#

C++

Clojure

COBOL

Crystal

Dart

Delphi

Elixir

Erlang

F#

Go

Groovy

Haskell

HTML/CSS

Java

JavaScript

Julia

Kotlin

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Worked with in PAST year Want to work with NEXT year

LISP

Matlab

Node.js

Objective-C

Perl

PHP

PowerShell

Python

R

Ruby

Rust

Scala

SQL

Swift

TypeScript

VBA

Other (please specify):

Which **database environments** 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 database 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

Cassandra

Couchbase

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Worked with in PAST year Want to work with NEXT year

DynamoDB

Elasticsearch

Firebase

IBM DB2

MariaDB

Microsoft SQL Server

MongoDB

MySQL

Oracle

PostgreSQL

Redis

SQLite

Other (please specify):

Which **cloud platforms** 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 platform 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

AWS

DigitalOcean

Google Cloud Platform

Heroku

IBM Cloud or Watson

Microsoft Azure

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Worked with in PAST year Want to work with NEXT year

Oracle Cloud Infrastructure

Other (please specify):

Which **web frameworks and libraries** 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

FastAPI

Flask

Gatsby

jQuery

Laravel

React.js

Ruby on Rails

Spring

Svelte

Symfony

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Worked with in PAST year Want to work with NEXT year

Vue.js

Other (please specify):

Which **other frameworks and libraries** 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 Framework

.NET Core / .NET 5

Apache Spark

Cordova

Flutter

Hadoop

Keras

NumPy

Pandas

Qt

React Native

TensorFlow

Torch/PyTorch

Other (please specify):

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Which **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 technology 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

Ansible

Chef

Deno

Docker

Flow

Git

Kubernetes

Pulumi

Puppet

Terraform

Unity 3D

Unreal Engine

Xamarin

Yarn

Other (please specify):

Which **development environments** did you use regularly over the past year, and which do you want to work with over the next year? Please check all that apply.

Worked with in PAST year Want to work with NEXT year

Android Studio

Atom

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Worked with in PAST year Want to work with NEXT year

Eclipse

Emacs

IntelliJ

IPython/Jupyter

NetBeans

Neovim

Notepad++

PHPStorm

PyCharm

Rider

RStudio

RubyMine

Sublime Text

TextMate

Vim

Visual Studio

Visual Studio Code

Webstorm

Xcode

Other (please specify):

What is the primary operating system in which you work? \*

BSD

Linux-based

MacOS

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Windows

Windows Subsystem for Linux (WSL)

Other (please specify):

What do you do when you get stuck on a problem? Select all that apply.

Watch help / tutorial videos

Panic

Play games

Meditate

Call a coworker or friend

Visit Stack Overflow

Do other work and come back later

Go for a walk or other physical activity

Google it

Visit another developer community (please name):

Other (please specify):

**4 - Stack Community**

**Stack Overflow - usage and community**

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.

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Stack Overflow for Teams (private knowledge sharing & collaboration platform for companies)

Stack Overflow

Stack Exchange

I have never visited Stack Overflow or the Stack Exchange network

How frequently would you say you visit Stack Overflow?

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

Do you have a Stack Overflow account?

Yes

No

Not sure/can't remember

How frequently would you say you participate in Q&A on Stack Overflow? By participate we mean ask, answer, vote for, or comment on questions.

I have never participated in Q&A on Stack Overflow

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

Do you consider yourself a member of the Stack Overflow community?

No, not at all

No, not really

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Neutral

Yes, somewhat

Yes, definitely

Not sure

Are you a member of any other online developer communities?

Yes

No

Please name up to 5 other online developer communities you belong to, and indicate whether they are public (anyone can join) or private (invitation required).

Public - Anyone can join Private - Invitation required to join

Online community 1:

Online community 2:

Online community 3:

Online community 4:

Online community 5:

**Demographics**

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**Demographics**

All questions in this section are optional, you may leave questions blank if you prefer not to answer.

As a reminder, all reporting of the survey responses will be anonymized.

What is your age?

Under 18 years old

18-24 years old

25-34 years old

35-44 years old

45-54 years old

55-64 years old

65 years or older

Prefer not to say

Which of the following describe you, if any? Please check all that apply.

Woman

Man

Non-binary, genderqueer, or gender non-conforming

Prefer not to say

Or, in your own words:

Do you identify as transgender?

Yes

No

Prefer not to say

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Or, in your own words:

Which of the following describe you, if any? Please check all that apply.

Bisexual

Gay or Lesbian

Straight / Heterosexual

Queer

Prefer not to say

Prefer to self-describe:

Which of the following describe you, if any? Please check all that apply.

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:

Which of the following describe you, if any? Please check all that apply. I am blind / have difficulty seeing

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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 None of the above

Prefer not to say

Or, in your own words:

Which of the following describe you, if any? Please check all that apply.

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) None of the above

Prefer not to say

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

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How easy or difficult was this survey to complete?

Easy

Neither easy nor difficult

Difficult

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