

STACK OVERFLOW DEVELOPER SURVEY 2017

QUESTIONNAIRE

METHODOLOGY NOTES

- This instrument was administered online (via SurveyMonkey) to developers recruited by Stack Overflow between January 12th and February 7th, 2017.
 - Some questions have been excluded from the public file (and, accordingly, this copy of the instrument) in order to protect respondents' privacy.
- Many questions were only shown to respondents based on their previous answers. The primary “triggers” for whether questions were shown self-description as a developer (Q100), country (Q130), employment status (Q145), job-seeking status (Q410), and Stack Overflow usage (Q910). The base of respondents who were shown each question is noted throughout the instrument.
- Most of the questions in the middle of the survey (following Q36, and up until Q100) were organized into blocks. The blocks about technology usage and Stack Overflow usage were shown to all respondents. The remaining six blocks were each shown to two-thirds of respondents, with each respondent receiving four of the six blocks:
 1. Developer attitudes (Q250)
 2. Job-seeking and compensation (Q410 to Q350)¹
 3. Education and professional development (Q520 to Q550)
 4. Software development practices (Q710 to Q770)
 5. Hardware and other tools (Q810 and Q830)
 6. Stack Overflow usage & attitudes (Q960 to Q980)

Additionally, the first five of these blocks were shown in random order, in order reduce any unforeseen ordering biases.

¹ Originally, the questions number 3xx came before the questions numbered 4xx, but we reversed this after pre-testing with a small group of developers.

LANDING PAGE

Hello, world! Thank you for taking the Stack Overflow Developer Survey 2017, the largest and most comprehensive survey of software developers on Earth. We'd like to ask you questions about your favorite technologies, coding habits, and work preferences, as well as how you learn, share, and level up as a developer.

As in previous years, anonymized results of the survey will be made publicly available under the Open Database License. We encourage you to download and analyze the dataset yourself when it becomes available in April.

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 each of these out in the survey with a note saying "This information will be kept private."

The survey should take you about 30 minutes to complete. We encourage you to complete it in one sitting.

To start the survey, click on the "next" button below.

BASE: Landing Page

Q100 Which of the following best describes you?

[single response]

1. I am a professional software developer [RESPONDENT]
2. I'm not a professional developer, but I write code sometimes for my job (e.g. engineering manager, product manager, data analyst, etc.) [RESPONDENT]
3. I used to code for a living, but I no longer do [RESPONDENT]
4. I am a student who is learning how to program [RESPONDENT]
5. None of these

BASE: Landing page

Q105 Do you program as a hobby or contribute to open source projects?

[single response]

1. Yes, I program as a hobby [RESPONDENT]
2. Yes, I contribute to open source projects [RESPONDENT]
3. Yes, both [RESPONDENT]
4. No [TERMINATE IF NOT ALREADY RESPONDENT]

BASE: All respondents

Q110 In which country do you currently live?

[single response, provide combo box with list of countries]

BASE: all respondents

Q130. Are you currently enrolled in a formal, degree-granting college or university program?

[single response]

1. Yes, full-time
2. Yes, part-time
3. No
4. I prefer not to say

BASE: DISPLAY ON SAME PAGE AS Q130

Q135. Which of the following best describes your current employment status?

1. Employed full-time
2. Employed part-time
3. Independent contractor, freelancer, or self-employed
4. Not employed, but looking for work
5. Not employed, and not looking for work
6. Retired
7. I prefer not to say

BASE: all respondents

Q140. Which of the following best describes the highest level of formal education that you've completed?

[single response]

1. I never completed any formal education
2. Primary/elementary school
3. Secondary school (e.g. American high school, German Realschule or Gymnasium, etc.)
4. Some college/university study without earning a bachelor's degree
5. Bachelor's degree (BA, BS, B.Eng., etc.)
6. Master's degree (MA, MS, M.Eng., MBA, etc.)
7. Professional degree (JD, MD, etc.)
8. Doctoral degree (Ph.D, Ed.D., etc.)
9. Something else: _____

BASE: went to college (Q140 >= 3)

Q145. You previously indicated that you went to a college or university. Which of the following best describes your main field of study (aka “major”) [IF Q120 >= 5, concatenate: “for your undergraduate studies”]?

[single response]

1. Computer science or software engineering
2. Computer programming or Web development
3. Computer engineering or electrical/electronics engineering
4. Information technology, networking, or system administration
5. Management information systems
6. Mathematics or statistics
7. A non-computer-focused engineering discipline (e.g. civil, chemical, mechanical, etc.)
8. A business discipline (e.g. accounting, finance, marketing, etc.)
9. A health science (e.g. nursing, pharmacy, radiology, etc.)
10. A humanities discipline (e.g. language, literature, history, philosophy, etc.)
11. A natural science (e.g. biology, chemistry, physics, etc.)
12. A social science (e.g. anthropology, economics, political science, etc.)
13. Fine arts or performing arts (e.g. graphic design, music, studio art, etc.)
14. Psychology
15. I never declared a major
16. Something else: _____ [provide write-in box]

BASE: employed by a company (Q135 <= 2)

Q147. How often do you work from home or remotely?

[single response]

1. All or almost all the time (I'm full-time remote)
2. More than half, but not all, the time
3. About half the time
4. Less than half the time, but at least one day each week
5. A few days each month
6. Never

BASE: employed by a company (Q135 <= 2)

Q150. In terms of the number of employees, how large is the company or organization you work for?

[single response]

1. Fewer than 10 employees
2. 10 to 19 employees
3. 20 to 99 employees
4. 100 to 499 employees
5. 500 to 999 employees
6. 1,000 to 4,999 employees
7. 5,000 to 9,999 employees
8. 10,000 or more employees
9. I don't know

BASE: employed by a company (Q135 <= 2)

Q155. Which of the following best describes the company or organization you work for?

[single response]

1. Federal/national government agency
2. State, provincial, or territorial government agency
3. City/municipal/county/local government agency
4. Non-profit/non-governmental organization
5. Sole proprietorship or partnership
6. Pre-series A startup
7. Venture-funded startup
8. Publicly-traded corporation
9. Something else: _____ [PROVIDE WRITE-IN]

BASE: all respondents

Q170. Including your education, for how many years have you been coding?

[single response, present combo box]

1. Less than a year
2. 1 to 2 years
3. 2 to 3 years
4. 3 to 4 years
5. 4 to 5 years
6. 5 to 6 years
7. 6 to 7 years
8. 7 to 8 years
9. 8 to 9 years
10. 9 to 10 years
11. 10 to 11 years
12. 11 to 12 years
13. 12 to 13 years
14. 13 to 14 years
15. 14 to 15 years
16. 15 to 16 years
17. 16 to 17 years
18. 17 to 18 years
19. 18 to 19 years
20. 19 to 20 years
21. 20 or more years

BASE: codes for a living or used to (Q100 <=3)

DISPLAY ON SAME PAGE AS Q170

Q175. For how many years [have you coded]/[did you code] for a living?

[single response, present combo box]

1. Less than a year
2. 1 to 2 years
3. 2 to 3 years
4. 3 to 4 years
5. 4 to 5 years
6. 5 to 6 years
7. 6 to 7 years
8. 7 to 8 years
9. 8 to 9 years
10. 9 to 10 years
11. 10 to 11 years
12. 11 to 12 years
13. 12 to 13 years
14. 13 to 14 years
15. 14 to 15 years
16. 15 to 16 years
17. 16 to 17 years
18. 17 to 18 years
19. 18 to 19 years
20. 19 to 20 years
21. 20 or more years

BASE: professional developer (Q100 == 1)

Q210. Which following best describe you as a software developer?

[multiple response, alpha order]

1. Web developer (front-end, back-end, or full stack)
2. Mobile developer
3. Embedded applications/devices developer
4. Graphics programmer
5. Machine learning specialist
6. Developer with a stats or math background
7. Data scientist
8. Graphic designer
9. Desktop applications developer
10. Database administrator
11. Systems administrator
12. DevOps specialist
13. Quality assurance engineer
14. Something else: _____ [ANCHOR, PROVIDE WRITE-IN]

BASE: professional Web developer (Q210 == 1)

Q211. Which of the following best describes you as a Web developer?

[single response]

1. Back-end Web developer
2. Front-end Web developer
3. Full stack Web developer

BASE: professional mobile developer (Q210 == 2)

Q212. For which of the following platforms do you develop mobile applications?

[multiple response]

- A. iOS
- B. Android
- C. Windows phone
- D. Blackberry
- E. Some other platform: _____ [PROVIDE WRITE-IN]

BASE: professional non-developer (Q100 == 2)

OR ex-pro developer ((Q100 == 3) & (Q135 != 7))

Q215. [You said before that you write some code as part of your job]/[You said before that you used to code as part of your job]. Which of the following best describes you?

[single response, alphabetize]

- 1. Engineering manager
- 2. C-suite executive (CEO, COO, CTO, CFO, etc.)
- 3. Product manager
- 4. Marketing or sales manager
- 5. Analyst or consultant
- 6. Data scientist
- 7. Designer or illustrator
- 8. Educator or academic researcher
- 9. Elected official
- 10. Something else: _____ [PROVIDE WRITE-IN]

BASE: codes for a living or manages those who do (Q100 <= 3)

Q220. Overall, how satisfied are you with your career so far?

[SCALE,

range from 0 to 10,

anchor 0 = "Not at all satisfied"

anchor 10 = "Completely satisfied"]

BASE: codes for a living and employed (Q100 == 1 and Q135 <= 3)

Q225. Overall, how satisfied are you with your current job? *If you work more than one job, please answer regarding the one you spend the most hours on.*

[SCALE,
range from 0 to 10,
anchor 0 = "Not at all satisfied"
anchor 10 = "Completely satisfied"]

BASE: ex-professional developer (Q100 == 3)

Q240. You said before that you used to code, but no longer do, as part of your job. To what extent do you agree or disagree with the following statements?

[Likert scale, 5-point range,
1 = "Strongly disagree",
2 = "Disagree",
3 = "Somewhat agree",
4 = "Agree",
5 = "Strongly agree",

Randomize order of items]

- A. If money weren't an issue, I would take a coding job again
- B. Working as a developer just wasn't for me
- C. I have better work-life balance now than I did as a developer
- D. My career is going the way I thought it would 10 years ago
- E. When I was a developer, I didn't feel like I belonged with my colleagues
- F. I don't think my coding skills are up to date
- G. I probably won't code for a living ever again
- H. I'm still active in the developer community

BASE: random groups A, B (50% of respondents)

Q250. To what extent do you agree or disagree with each of the following statements?

[LIKERT SCALE,

1 = "Strongly disagree"

2 = "Disagree"

3 = "Somewhat agree"

4 = "Agree"

5 = "Strongly agree"

Randomize order of items]

- A. I love solving problems
- B. Building things is very rewarding
- C. Learning new technologies is fun
- D. I tend to get bored by implementation details
- E. Job security is important to me
- F. Diversity in the workplace is important
- G. It annoys me when software has a poor UI
- H. Most of my friends are developers, engineers, or scientists
- I. There's a right and a wrong way to do everything
- J. Honestly, there's a lot about computers that I just don't understand
- K. I take my work very seriously
- L. I invest a lot of time into the tools I use
- M. I don't really care what I work on, so long as I'm paid well
- N. I feel a sense of kinship to other developers
- O. I like to challenge myself
- P. I think of myself as competing with my peers
- Q. I want to change the world

BASE: all respondents

Q400. How do you pronounce "GIF"?

[single response]

1. With a hard "g," like "gift"
2. With a soft "g," like "jiff"
3. Enunciating each letter: "gee eye eff"
4. Some other way: _____

BASE: all respondents

Q410. Which of the following best describes your current job-seeking status?

[single response]

1. I am actively looking for a job
2. I'm not actively looking, but I am open to new opportunities
3. I am not interested in new job opportunities

BASE: all respondents

Q420. When was the last time that you took a job with a new employer?

[single response]

1. Less than a year ago
2. Between 1 and 2 years ago
3. Between 2 and 4 years ago
4. More than 4 years ago
5. Not applicable — I've never had a job [SUPPRESS IF Q100 <= 3]

BASE: ALL RESPONDENTS, Vary prompt by Q410 == 1

Q430. [When you're assessing]/[If you were assessing] potential jobs to apply to, how important [are]/[would] each of the following [{empty string}]/[be] to you?

[Likert scale,

1 = 'Not at all important',

2 = 'Not very important',

3 = 'Somewhat important',

4 = 'Important',

5 = 'Very important'

Randomize order]

- A. The industry that I'd be working in
- B. The specific role or job title I'd be applying for
- C. The experience level called for in the job description
- D. The financial performance or funding status of the company or organization
- E. The specific department or team I'd be working on
- F. The languages, frameworks, and other technologies I'd be working with
- G. How projects are managed at the company or organization
- H. The compensation and benefits offered
- I. The office environment I'd be working in
- J. The amount of time I'd have to spend commuting
- K. The opportunity to work from home/remotely
- L. The reputations of the company's senior leaders
- M. Opportunities for professional development
- N. The diversity of the company or organization
- O. How widely used or impactful the product or service I'd be working on is

BASE: all respondents

Q350. When it comes to compensation and benefits, other than base salary, which of the following are the most important to you? *Please choose no more than X.*

[multiple response, randomize order, max selections = X]

- A. Stock options
- B. Retirement/pension contributions
- C. Opportunity for an annual bonus
- D. The number of annual days off (vacation, holidays, etc.)
- E. Employer match of charitable contributions
- F. Health benefits
- G. Employer purchase of high-quality equipment (workstation, monitor, etc.)
- H. Private office
- I. Employer sponsorship of professional development (e.g. conference attendance, course enrollment)
- J. Employer sponsorship of education (e.g. tuition reimbursement)
- K. Long-term leave policies (e.g. parental leave, sabbatical)
- L. Number of expected work hours each week
- M. The ability to work from home
- N. Child or elder care benefits

Something else: _____ [ANCHOR, PROVIDE WRITE-IN BOX]

BASE: all respondents

Q_CLICKY. If two developers are sharing an office, is it OK for one of them to get a mechanical keyboard with loud "clicky" keys?

[single response, flip order for each respondent]

- 1. Yes
- 2. No

BASE: ALL RESPONDENTS, Vary response options by country

Q440. On which of the following sites do you maintain a profile or online resumé? *Please check all that apply.*

[multiple response]

- A. LinkedIn
- B. Indeed
- C. Monster
- D. Hired.com
- E. Dice
- F. Talent.io [EUROPE ONLY]
- G. StepStone [DACH ONLY]
- H. Xing [DACH ONLY]
- I. Reed.co.uk [UK/IRELAND ONLY]
- J. CW Jobs [UK/IRELAND ONLY]
- K. Total Jobs [UK/IRELAND ONLY]
- L. Glassdoor [UK/IRELAND ONLY]
- M. JobSite.co.uk [UK/IRELAND ONLY]
- N. Remix jobs [FRANCE ONLY]
- O. Naukri [INDIA ONLY]
- P. Pracuj [POLAND ONLY]
- Q. Some other site(s): _____ [PROVIDE WRITE-IN]

BASE: employed by a company (Q135 <= 2)

Q445. Think back to when you first applied to work for your current employer. How did you first learn that they were hiring for that job?

[single response, randomize order]

1. A friend referred me
2. A career fair and/or on-campus recruiting
3. I was contacted directly by the company (in-house recruiter)
4. An external recruiter or headhunter
5. I visited the company's Web site
6. A general-purpose job board (e.g. LinkedIn, Indeed)
7. A tech-specific job board (e.g. HackerNews, Dice)
8. Some other way: _____

BASE: Actively/passively looking (Q410 < 3)

Q460. How many hours do you spend during a typical week on activities related to finding new job opportunities?

[numeric entry box, >= 0 and <= 168]

BASE: professional developer (Q100 == 1)

Q470. Think back to the last time you updated your resumé, CV, or an online profile on a job site. What prompted you to do so?

[single response, randomize order]

- A. I was just giving it a regular “tune up”
- B. I received bad news about the future of my company or department
- C. I received negative feedback on my job performance
- D. A recruiter contacted me
- E. A friend told me about a job opportunity
- F. I saw an employer’s advertisement
- G. Something else: _____ [ANCHOR, PROVIDE WRITE-IN]

BASE: all respondents

Q481. Congratulations! The bosses at your new employer, E Corp, are allowing you to choose which metrics will be used to assess your individual performance in your role as a senior developer. Which metrics do you suggest to the E bosses? *Please select all that apply.*

[multiple response, randomize order]

- A. Number of lines of code written
- B. Number of bugs found
- C. Number of hours worked/billed
- D. Frequency of check-ins/commits
- E. Frequency of major product revisions/releases
- F. Customer satisfaction ratings for your product/service
- G. Performance of product/service against industry benchmarks
- H. Ability to deliver on schedule/within budget
- I. Revenue performance of product/service
- J. Manager's rating of my performance
- K. Peers'/teammates' rating of my performance
- L. Something else: _____ [ANCHOR, EXCLUSIVE]

BASE: ALL RESPONDENTS

Q491. Congratulations! You've just been put in charge of technical recruiting at Globex, a multinational high-tech firm. This job comes with a corner office, and you have an experienced staff of recruiters at your disposal. All they need to be successful is a sense of the relative importance they should place on each of the following when recruiting software developers. What do you tell them?

[Likert scale,
5-point range,
1 = "Not at all important", 2 = "Not very important", etc.

Randomize order of items]

- A. Knowledge of algorithms and data structures
- B. Experience with specific tools (libraries, frameworks, etc.) used by the employer
- C. Communication skills
- D. Contributions to open source projects
- E. Experience with specific project management tools & techniques
- F. Previous companies worked at
- G. Previous job titles held
- H. Educational credentials (e.g. schools attended, specific field of study, grades earned)
- I. Stack Overflow reputation

BASE: professional developer (Q100 == 1) AND currently employed (Q135 <= 3)

Q310. Which currency do you use day-to-day? *If you're a globe-trotting digital nomad and the answer is "it's complicated," please pick the one you're most comfortable estimating in.*

[single response, alpha order]

1. U.S. dollars (\$)
2. Euros (€)
3. British pounds sterling (£)
4. Japanese yen (¥)
5. Chinese yuan renminbi (¥)
6. Brazilian reais (R\$)
7. Indian rupees (₹)
8. Mexican pesos (MXN\$)
9. South African rands (R)
10. Swedish kroner (SEK)
11. Australian dollars (A\$)
12. Canadian dollars (C\$)
13. Singapore dollars (S\$)
14. Russian rubles (₽)
15. Swiss francs
16. Polish złoty (zł)
17. Bitcoin (btc)
18. Some other currency: _____ [ANCHOR, PROVIDE 50-char write-in]

BASE: professional developer (Q100 == 1) AND currently employed (Q135 <= 3)

Q320. What is your current annual salary, in [currency from Q310]? *Please enter a whole number in the box below, without any punctuation. If you prefer not to answer, please leave the box empty / blank.*

[NUMERIC ENTRY BOX, 10-digit whole number]

BASE: answered Q320 (Q320 is not null)

Q330. Compared to your estimate of your own market value, do you think you are...?

[single response, flip scale for each respondent]

1. Greatly underpaid
2. Somewhat underpaid
3. Neither underpaid nor overpaid
4. Somewhat overpaid
5. Greatly overpaid

BASE: student (Q100 == 4)

Q340. If you were to negotiate a salary today for a new job as a developer with a new employer, what would you expect to be the final salary offer? *If you prefer not to answer, please leave the box blank.*

[NUMERIC ENTRY BOX, 10-digit whole number]

BASE: all respondents

Q399. Tabs or spaces?

[single response]

1. Tabs
2. Spaces
3. Both

BASE: pro developers (Q100 == 1)

Q520. Overall, how important has your formal schooling and education been to your success as a developer?

[single response]

1. Very important
2. Important
3. Somewhat important
4. Not very important
5. Not at all important

BASE: all respondents

Q530. Outside of your formal schooling and education, which of the following have you done? *Please select all that apply.*

[multiple response, randomize order, select at least one]

- A. Taken an online course in programming or software development (e.g. a MOOC)
- B. Participated in a full-time, intensive developer training program (aka “bootcamp”)
- C. Taken a part-time/evening face-to-face course in programming or software development
- D. Completed an industry certification program (e.g. MCPD)
- E. Received on-the-job training in software development
- F. Taught yourself a new language, framework, or tool without taking a formal course
- G. Participated in online coding competitions (e.g. HackerRank, CodeChef, TopCoder)
- H. Participated in a hackathon
- I. Contributed to open source software
- J. None of these [ANCHOR, EXCLUSIVE]

BASE: taught self something (Q530G == 1)

Q535. You indicated that you had taught yourself a programming technology without taking a course. What resources did you use to do that? (If you've done it more than once, please think about the most recent time you've done so.)

Please select all that apply.

[multiple response, randomize order]

- A. The official documentation and/or standards for the technology
- B. A book or e-book from O'Reilly, Apress, or a similar publisher
- C. A college computer science or software engineering textbook
- D. Questions & answers on Stack Overflow
- E. Online developer communities other than Stack Overflow (e.g. forums, listservs, IRC channels, etc.)
- F. Internal Wikis, chat rooms, or documentation set up by my company for employees
- G. Pre-scheduled tutoring or mentoring sessions with a friend or colleague
- H. Tapping your network of friends, family, and peers versed in the technology
- I. The technology's online help system (e.g. man pages, typing "help" in a REPL)
- J. Something else: _____ [PROVIDE WRITE-IN]

BASE: went through a bootcamp (Q530B == 1)

Q540. You indicated previously that you went through a developer "bootcamp." How long did it take you to get a full-time job as a developer after graduating?

[single response]

1. I got a job as a developer immediately upon graduating
2. Less than a month
3. One to three months
4. Four to six months
5. Six months to a year
6. Longer than a year
7. I haven't gotten a job yet

BASE: USA (Q110 == "US"), random groups A, B, C (75% of respondents), vary prompt by group

Q550. Let's pretend you have a distant cousin [{null} / named Bob / named Alice]. [They are/ He is / She is] 24 years old, [have/ has/ has] a college degree in a field not related to computer programming, and [have/ has/ has] been working a non-coding job for the last two years. [They want/ he wants/ she wants] your advice on how to switch to a career as a software developer. Which of the following options would you most strongly recommend to [your cousin / Bob / Alice]? *Please choose no more than four options.*

[multiple response, max selections = 3, randomize order]

- A. Return to college (either full-time or part-time) and take undergraduate-level courses in computer science or software engineering
- B. Apply for master's degree programs in computer science or a related discipline
- C. Get a job as a QA tester and work your way into a developer role
- D. Take online courses
- E. Contribute to open source projects
- F. Enroll in a full-time, immersive developer training program (aka "bootcamp")
- G. Enroll in part-time/evening developer training courses
- H. Participate in hack-a-thons
- I. Participate in online coding competitions
- J. Buy books and work through the exercises on your own
- K. Go to conferences or meetups for developers
- L. Something else: _____ [ANCHOR, PROVIDE WRITE-IN]

BASE: all respondents

Q599. Suppose you could choose your own working hours for an 8-hour day. What time would you start work for the day?

[numeric entry, 24-hour range]

BASE: active developer (Q100 != 3)

Q625. Which of the following languages have you done extensive development work in over the past year, and which do you want to work in over the next year?

[multiple response grid, Column headers “Worked with over last year,” “Want to work in over next year”, Alphabetize rows]

- A. Assembly
- B. C
- C. C++
- D. C#
- E. CoffeeScript
- F. Clojure
- G. Dart
- H. Erlang
- I. F#
- J. Go
- K. Groovy
- L. Hack
- M. Haskell
- N. Java
- O. JavaScript
- P. Julia
- Q. Lua
- R. Matlab
- S. Objective-C
- T. Perl
- U. PHP
- V. Python
- W. R
- X. Ruby
- Y. Rust
- Z. Scala
- AA. Smalltalk
- BB. SQL
- CC. Swift
- DD. TypeScript
- EE. VBA
- FF. VB.NET
- GG. Visual Basic 6

BASE: active developer (Q100 != 3)

Q626. Which of the following libraries, frameworks, 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?

[multiple response grid,

Column headers “Worked with over last year,” “Want to work in over next year”,

Alphabetize rows]

- A. AngularJS
- B. Hadoop
- C. Node.JS
- D. React
- E. Spark
- F. Cordova
- G. Xamarin
- H. Firebase
- I. .NET Core

BASE: active developer (Q100 != 3)

Q627. Which of the following 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?

[multiple response grid,

Column headers “Worked with over last year,” “Want to work in over next year”,

Alphabetize rows]]

- A. Cassandra
- B. MongoDB
- C. Redis
- D. SQL Server
- E. MySQL
- F. PostgreSQL
- G. Oracle
- H. SQLite

BASE: active developer (Q100 != 3)

Q628. Which of the following platforms have you done extensive development work for over the past year?

[multiple response, alphabetize]

- A. Android
- B. iOS
- C. Windows Phone
- D. Windows Desktop
- E. Linux Desktop
- F. Mac OS
- G. Arduino
- H. Raspberry Pi
- I. Serverless
- J. Salesforce
- K. Sharepoint
- L. Wordpress
- M. Microsoft Azure
- N. Amazon Web Services (AWS)
- O. Some other cloud platform (e.g. Google App Engine, Bluemix, Predix, etc.)

BASE: all respondents

Q699. Suppose you're about to start a few hours of coding and have complete control over your auditory environment (music, background noise, etc.). What would you do?

[single response]

1. Keep the room absolutely quiet
2. Turn on some music
3. Turn on the news or talk radio
4. Put on a movie or TV show
5. Put on some ambient sounds (e.g. whale songs, forest sounds)
6. Something else: _____

BASE: codes for a living or student (Q100 in (1,2,4))

Q710. Which of the following methodologies do you have experience working in?

[2-column multiple response, randomize order, column headers: "Currently using,"
"Have used in the past"]

- A. Formal standard such as ISO 9001 or IEEE 12207 (aka "waterfall" methodologies)
- B. Agile
- C. Lean
- D. PRINCE2
- E. Scrum
- F. Extreme programming (XP)
- G. Pair programming
- H. Mob programming
- I. Kanban
- J. Evidence-based software engineering
- K. None of these [ANCHOR, EXCLUSIVE]

BASE: codes for a living or student (Q100 != 3)

Q720. What version control system do you use? *If you use several, please choose the one you use most often.*

[single response, alpha order]

- 1. Git
- 2. Mercurial
- 3. Subversion
- 4. Team Foundation Server
- 5. Visual Source Safe
- 6. Rational ClearCase
- 7. Copying and pasting files to network shares
- 8. Zip file back-ups
- 9. Something else: _____ [ANCHOR, provide write-in]
- 10. I don't use a version control system [ANCHOR]

BASE: uses version control (Q720 <= 9)

Q730. Over the last year, how often have you checked-in or committed code?

[single response]

1. Multiple times a day
2. Once a day
3. A few times a week
4. A few times a month
5. Just a few times over the year
6. Never

BASE: random groups A, C (50% of respondents)

Q770. To what extent do you agree or disagree with the following statements?

[LIKERT SCALE,

Randomized order,

1 = "Strongly disagree"

2 = "Disagree"

3 = "Somewhat agree"

4 = "Agree"

5 = "Strongly agree"]

- A. It's better to ship now and optimize later
- B. Maintaining other people's code is a form of torture
- C. Most project management techniques are useless
- D. I enjoy debugging code
- E. I often get "into the zone" when I'm coding
- F. I have difficulty communicating my ideas to my peers
- G. It's harder to collaborate with remote peers than those on site

BASE: active coder (Q100 != 3)

Q810. Thinking about your main coding workstation, how satisfied are you with each of the following?

[scale, 1-5,

1 = "Not at all satisfied",

2 = "Not very satisfied",

3 = "Somewhat satisfied",

4 = "Satisfied",

5 = "Very satisfied"

Randomize order of items]

- A. Monitors/screens (number of, size, resolution)
- B. Processing power (CPU and/or GPU)
- C. Amount of RAM
- D. Storage capacity
- E. Storage read/write speed
- F. Internet bandwidth

BASE: employed at an organization (Q135 <= 2)

Q830. How much influence do you have on purchasing decisions within your organization for each of the following?

[scale,

1 = "No influence at all"

2 = "Not much influence"

3 = "Some influence"

4 = "A lot of influence"

5 = "I am the final decision maker"

6 = "Not applicable at my company"

Randomize order of items,

Randomize items show to each group (50% of list to each respondent)]

- A. Your personal workstation hardware
- B. Personal workstation hardware for others in the company
- C. Servers
- D. Main technical stack of the company
- E. Technical stack used in your department
- F. Data analysis and visualization tools (e.g. Tableau, Looker)
- G. Database systems or solutions
- H. Cloud or serverless back-end solutions
- I. Consultants
- J. Recruitment tools & platforms
- K. Communication & collaboration tools

T900. Thanks! We're in the home stretch here. Now, we're going to ask you some questions about your experience on Stack Overflow.

BASE: all respondents

Q910. Which of the following best describes you?

[single response]

1. I'd never heard of Stack Overflow before today
2. I've heard of Stack Overflow, but have never visited
3. I've visited Stack Overflow, but haven't logged in/created an account
4. I have a login for Stack Overflow, but haven't created a CV or Developer Story
5. I have created a CV or Developer Story on Stack Overflow

BASE: Stack user (Q910 >= 3)

Q920. On a scale from zero to ten, with ten being the highest, please rate your overall satisfaction with Stack Overflow.

[scale, 0 to 10,

Anchor 0 = "Not at all satisfied",

Anchor 10 = "Extremely well satisfied"]

BASE: aware, but no login (Q910 == (2 or 3)), vary prompt

Q930. For which of the following reasons have you [not visited Stack Overflow]/[not created a Stack Overflow login]? *Please select all that apply.*

[multiple response, randomize order]

- A. I've just never really needed to
- B. The community has a reputation for being unfriendly to newcomers
- C. I don't think the questions I would want to ask can be answered by Stack Overflow
- D. I use other communities and/or resources to answer my technical questions
- E. I don't think I need to use Stack Overflow Jobs to find a job
- F. I'm more comfortable using a language other than English
- G. My organization blocks Stack Overflow [SUPPRESS IF Q910 == 3]
- H. I have a access to a professional support service for my technical stack
- I. It takes too long to get an answer

J. Some other reason: _____ [ANCHOR, PROVIDE WRITE-IN]

BASE: login but no CV (Q910 == 4) AND looking for work (Q410 <= 2)

Q940. You told us before that you are [actively looking for work]/[open to job offers], but you haven't created a Developer Story on Stack Overflow. Why not?

[multiple response, randomize order]

- A. I'm confident that I can find a job without creating a Developer Story
- B. I didn't know that Developer Story was related to Stack Overflow Jobs
- C. The jobs I've seen advertised on Stack Overflow didn't seem like a good fit for me
- D. I'm trying to avoid being spammed by recruiters
- E. The Developer Story format seems awkward
- F. I don't think I have enough career experience to put together a good Developer Story
- G. Other job boards are more effective
- H. I've used other job boards in the past and continue to use them
- I. Some other reason: _____ [ANCHOR, PROVIDE WRITE-IN]
- J. I wasn't aware of the Developer Story feature [EXCLUSIVE, ANCHOR]

BASE: Stack user (Q910 >= 3)

Q960. Which of the following devices do you typically use to connect to Stack Overflow? *Please select all that apply.*

[multiple response, select at least one]

- A. A desktop or laptop computer
- B. An iPhone or iPad, using a mobile web browser
- C. An iPhone or iPad, using the Stack Exchange iOS app
- D. An Android smartphone or tablet, using the mobile web browser
- E. An Android smartphone or tablet, using the Stack Exchange Android app

F. Some other phone, using the mobile web browser

BASE: Stack user (Q910 \geq 3)

Q970. Over the last three months, approximately how often have you done each of the following on Stack Overflow?

[scale,

1 = "Haven't done at all"

2 = "Once or twice"

3 = "Several times"

4 = "At least weekly"

5 = "At least once each day"

Randomize order]

- A. Found an answer that solved my coding problem
- B. Copied a code example and pasted it into my codebase
- C. Seen a job listing I was interested in
- D. Researched a potential employer by visiting its company page
- E. Searched for jobs
- F. Asked a new question
- G. Written a new answer to someone else's question
- H. Participated in community discussions on meta or in chat.meta

BASE: Stack user (Q910 >= 3)

Q980. To what extent do you agree or disagree with the following statements?

[Likert scale,

1 = "Strongly disagree",

2 = "Disagree",

3 = "Somewhat agree",

4 = "Agree",

5 = "Strongly agree"

Randomize order of items]

- A. The ads on Stack Overflow are relevant to me
- B. The ads on Stack Overflow are distracting
- C. The moderation on Stack Overflow is unfair
- D. I feel like a member of the Stack Overflow community
- E. The answers and code examples I get on Stack Overflow are helpful
- F. Stack Overflow makes the Internet a better place
- G. I don't know what I'd do without Stack Overflow
- H. The people who run Stack Overflow are just in it for the money

BASE: All respondents

T1200 We're almost done! The next set of questions will ask about you as a person. All questions in this section are optional. As a reminder, all reporting of the survey responses will be anonymized.

BASE: All respondents

Q1220. Which of the following do you currently identify as?

[single response]

1. Male
2. Female
3. Trans male/trans man
4. Trans female/trans woman
5. Genderqueer or gender non-conforming
6. A different identity: _____ [PROVIDE WRITE-IN FIELD]
7. I prefer not to answer

BASE: All respondents

Q1240 What is the highest level of education received by either of your parents?

[single response]

1. No education
2. Primary/elementary school
3. High school
4. Some college or university study, without receiving a bachelor's degree
5. A bachelor's degree (e.g. BA, BS, B.Eng.)
6. A master's degree (e.g. MA, MS, MBA)
7. A professional degree (e.g. MD, JD, Div.D.)
8. A doctoral degree (Ph.D.)

BASE: all respondents

Q1290. Which of the following do you identify as? *Please select all that apply.*

[multiple response]

- A. Black or of African descent
- B. East Asian
- C. Hispanic or Latino/Latina
- D. Middle Eastern
- E. Native American, Pacific Islander, or Indigenous Australian
- F. South Asian
- G. White or of European descent
- H. I don't know
- I. I prefer not to say
- J. Something else: _____ [PROVIDE WRITE-IN]

T1400. Almost done! The last thing we'd like to ask you about is what it's been like to take this survey.

BASE: all respondents

Q1410. To what extent do you agree or disagree with each of the following statements?

[Likert scale,

1 = "Strongly disagree"

2 = "Disagree"

3 = "Somewhat agree"

4 = "Agree"

5 = "Strongly agree"

Randomize order of items]

- A. This survey was too long
- B. The questions were interesting
- C. The questions were confusing
- D. I'm interested in learning how other developers answered