

# Python developers survey 2019

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## Page 1

**Page exit logic:** Skip / Disqualify Logic**IF:** #1 Question "Is Python the main language you use for your current projects?" is one of the following answers ("No, I don't use Python for my current projects") **THEN:** Jump to [Page](#) 13

**Logic:** Show/hide trigger exists.

**Is Python the main language you use for your current projects?\***

- ☐ Yes
- ☐ No, I use Python as a secondary language
- ☐ No, I don't use Python for my current projects

**What other language(s) do you use?\***

- ☐ None
- ☐ Java
- ☐ JavaScript
- ☐ C/C++
- ☐ PHP
- ☐ C#
- ☐ Ruby
- ☐ Bash / Shell
- ☐ Objective-C
- ☐ Go
- ☐ Visual Basic
- ☐ Scala
- ☐ SQL
- ☐ Kotlin
- ☐ R

- ☐ Swift
  - ☐ Clojure
  - ☐ Perl
  - ☐ Rust
  - ☐ Groovy
  - ☐ TypeScript
  - ☐ CoffeeScript
  - ☐ HTML/CSS
  - ☐ Other - Write In:: \_\_\_\_\_ \*
- 

## Page 2

### **How long have you been programming in Python?\***

- ☐ Less than 1 year
- ☐ 1–2 years
- ☐ 3–5 years
- ☐ 6–10 years
- ☐ 11+ years

### **How many years of professional coding experience do you have?\***

- ☐ Less than 1 year
- ☐ 1–2 years
- ☐ 3–5 years
- ☐ 6–10 years
- ☐ 11+ years

### **For what purposes do you mainly use Python?\***

- ☐ For work
- ☐ For personal, educational or side projects
- ☐ Both for work and personal

**Logic: Show/hide trigger exists.**

**What do you use Python for?\***

- ☐ Educational purposes
  - ☐ Data analysis
  - ☐ DevOps / System administration / Writing automation scripts
  - ☐ Software testing / Writing automated tests
  - ☐ Software prototyping
  - ☐ Web development
  - ☐ Machine learning
  - ☐ Mobile development
  - ☐ Desktop development
  - ☐ Computer graphics
  - ☐ Network programming
  - ☐ Game development
  - ☐ Multimedia applications development
  - ☐ Embedded development
  - ☐ Programming of web parsers / scrapers / crawlers
  - ☐ Other - Write In:: \_\_\_\_\_\*
- 

## Page 3

**Piping: Piped From Question 6. ( What do you use Python for?)**

**To what extent are you involved in the following activities?\***

	primary activity	secondary activity	hobby
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**Logic: Hidden unless: Roles count is greater than "1"**

**Piping: Piped Values From Question 6. ( What do you use Python for?)**

**What do you use Python for the most?\***

**Logic: Hidden unless: #6 Question " What do you use Python for?" is one of the following answers ("Data analysis","Machine learning")**

**Do you consider yourself as a Data-Scientist?\***

☐ Yes

☐ No

☐ Other – Write In:: \_\_\_\_\_ \*

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## Page 4

**Logic: Show/hide trigger exists.**

**Which version of Python do you use the most?\***

☐ Python 2

☐ Python 3

**Logic: Hidden unless: #9 Question "Which version of Python do you use the most?" is one of the following answers ("Python 2")**

**Which version of Python 2 do you use the most?\***

☐ Python 2.0

☐ Python 2.1

☐ Python 2.2

☐ Python 2.3

☐ Python 2.4

☐ Python 2.5

☐ Python 2.6

☐ Python 2.7

**Logic: Hidden unless: #9 Question "Which version of Python do you use the most?" is one of the following answers ("Python 3")**

**Which version of Python 3 do you use the most?\***

- ☐ Python 3.0
- ☐ Python 3.1
- ☐ Python 3.2
- ☐ Python 3.3
- ☐ Python 3.4
- ☐ Python 3.5
- ☐ Python 3.6
- ☐ Python 3.7
- ☐ Python 3.8
- ☐ Python 3.9

**What do you typically use to upgrade your Python version?\***

- ☐ I don't update
- ☐ Somebody else manages Python updates for me
- ☐ Python.org
- ☐ Build from source
- ☐ Automatic upgrade via cloud provider
- ☐ Enthought
- ☐ Anaconda
- ☐ ActivePython
- ☐ Intel Distribution for Python
- ☐ OS-provided Python (via apt-get, yum, homebrew, etc.)
- ☐ pyenv
- ☐ pythonz
- ☐ I use Docker containers
- ☐ Other – Write In:: \_\_\_\_\_\*

**Do you use any of the following tools to isolate Python environments, if any?\***

- ☐ None
- ☐ Virtualenv

- ☐ Pipenv
  - ☐ Poetry
  - ☐ Conda
  - ☐ Docker
  - ☐ Vagrant / virtual machines
  - ☐ Other – Write In:: \_\_\_\_\_ \*
- 

## Page 5

### What web frameworks / libraries do you use in addition to Python?\*

- ☐ None
- ☐ Django
- ☐ TurboGears
- ☐ web2py
- ☐ Bottle
- ☐ CherryPy
- ☐ Flask
- ☐ Hug
- ☐ Pyramid
- ☐ Tornado
- ☐ Falcon
- ☐ Other – Write In:: \_\_\_\_\_ \*

### What data science framework(s) do you use in addition to Python?\*

- ☐ None
- ☐ PyTorch
- ☐ NumPy
- ☐ SciPy
- ☐ Pandas
- ☐ Matplotlib
- ☐ Seaborn
- ☐ SciKit-Learn

- ☐ Keras
- ☐ TensorFlow
- ☐ Theano
- ☐ NLTK
- ☐ MXNet
- ☐ Gensim
- ☐ Other - Write In:: \_\_\_\_\_ \*

**Which of the following frameworks / libraries do you use in addition to Python?\***

- ☐ None
  - ☐ Requests
  - ☐ aiohttp
  - ☐ PyQT
  - ☐ PyGTK
  - ☐ wxPython
  - ☐ Pillow
  - ☐ Tkinter
  - ☐ Pygame
  - ☐ Twisted
  - ☐ Asyncio
  - ☐ Kivy
  - ☐ Six
  - ☐ Scrapy
  - ☐ Other – Write In:: \_\_\_\_\_ \*
- 

## Page 6

**Logic: Show/hide trigger exists.**

**Which of the following cloud platforms do you use?\***

- ☐ None
- ☐ Google Cloud Platform

- ☐ AWS
- ☐ Microsoft Azure
- ☐ Rackspace
- ☐ Heroku
- ☐ DigitalOcean
- ☐ Linode
- ☐ PythonAnywhere
- ☐ OpenShift
- ☐ OpenStack
- ☐ Other – Write In:: \_\_\_\_\_ \*

**Logic: Hidden unless: #17 Question "Which of the following cloud platforms do you use?" is one of the following answers ("Google Cloud Platform", "AWS", "Microsoft Azure", "Rackspace", "Heroku", "DigitalOcean", "Linode", "PythonAnywhere", "OpenShift", "OpenStack", "Other – Write In:")**

**How do you run code in the cloud (in the production environment)?\***

- ☐ None of the following
- ☐ In virtual machines
- ☐ Within containers
- ☐ On a Platform-as-a-Service (such as Heroku or Google App Engine)
- ☐ Serverless (such as AWS Lambda or Cloud Functions)
- ☐ Other – Write In:: \_\_\_\_\_ \*

**Logic: Hidden unless: #17 Question "Which of the following cloud platforms do you use?" is one of the following answers ("Google Cloud Platform", "AWS", "Microsoft Azure", "Rackspace", "Heroku", "DigitalOcean", "Linode", "PythonAnywhere", "OpenShift", "OpenStack", "Other – Write In:")**

**How do you develop for the cloud?\***

- ☐ None of the following
- ☐ With local system interpreter
- ☐ Locally with virtualenv (or similar)
- ☐ In Docker containers
- ☐ In virtual machines
- ☐ In remote development environments



☐ Directly in the production environment

☐ Other – Write In:: \_\_\_\_\_ \*

**What operating system(s) are your development environment?\***

☐ Windows

☐ Linux

☐ macOS

☐ BSD

☐ Other – Write In:: \_\_\_\_\_ \*

**Which Python unit-testing framework(s) do you use, if any?\***

☐ None

☐ pytest

☐ nose

☐ unittest

☐ doctest

☐ Tox

☐ Hypothesis

☐ mock

☐ Other – Write In:: \_\_\_\_\_ \*

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## Page 7

**What ORM(s) do you use together with Python, if any?\***

☐ None

☐ Django ORM

☐ SQLAlchemy

☐ Peewee

☐ Dejavu

☐ PonyORM

☐ SQLAlchemy

☐ Tortoise ORM

☐ Other – Write In:: \_\_\_\_\_ \*

**Which database(s) do you regularly use, if any?\***

☐ None

☐ DB2

☐ MS SQL Server

☐ MySQL

☐ Oracle Database

☐ PostgreSQL

☐ SQLite

☐ Cassandra

☐ Couchbase

☐ HBase

☐ MongoDB

☐ Neo4j

☐ Redis

☐ Amazon Redshift

☐ h2

☐ Other – Write In:: \_\_\_\_\_ \*

**Which of the following Big Data tool(s) do you use, if any? \***

☐ None

☐ Apache Beam

☐ Apache Flink

☐ Apache Hadoop/MapReduce

☐ Apache Hive

☐ Apache Samza

☐ Apache Kafka

☐ Apache Spark

☐ Apache Tez

☐ Dask

☐ ClickHouse

☐ Other – Write In:: \_\_\_\_\_ \*

**Which Continuous Integration (CI) system(s) do you regularly use?\***

- ☐ None
- ☐ Jenkins / Hudson
- ☐ TeamCity
- ☐ Bamboo
- ☐ Travis CI
- ☐ CircleCI
- ☐ CruiseControl
- ☐ Gitlab CI
- ☐ AppVeyor
- ☐ Other – Write In:: \_\_\_\_\_ \*

**Which configuration management tools do you use, if any?\***

- ☐ None
- ☐ Salt
- ☐ Puppet
- ☐ Chef
- ☐ Ansible
- ☐ Custom solution
- ☐ Other – Write In:: \_\_\_\_\_ \*

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## Page 8

**Logic: Show/hide trigger exists.**

**What is the main editor you use for your current Python development?\***

- ☐ None
- ☐ PyCharm Professional Edition
- ☐ PyCharm Community Edition
- ☐ Sublime Text

- ☐ Vim
  - ☐ Atom
  - ☐ VS Code
  - ☐ Eclipse + Pydev
  - ☐ Aptana
  - ☐ JupyterLab
  - ☐ Jupyter Notebook
  - ☐ IntelliJ IDEA
  - ☐ NotePad++
  - ☐ IDLE
  - ☐ Emacs
  - ☐ Python Tools for Visual Studio (PTVS)
  - ☐ NetBeans
  - ☐ Spyder
  - ☐ Rodeo
  - ☐ Gedit
  - ☐ Ninja-IDE
  - ☐ Komodo Editor
  - ☐ Komodo IDE
  - ☐ Wing IDE
  - ☐ TextMate
  - ☐ Other – Write In:: \_\_\_\_\_ \*
- 

## Page 9

**Logic: Hidden unless: #27 Question "What is the main editor you use for your current Python development?" is not one of the following answers ("None")**

**Piping: Piped Values From Question 27. (What is the main editor you use for your current Python development?)**

**What editors/IDEs do you use for Python development in addition to [question('value'), id='298']?\***

☐ None

☐ Other – Write In:: \_\_\_\_\_ \*

**Do you regularly work on multiple projects at the same time?\***

- ☐ No, I only work on one project
- ☐ Yes, I work on one main and several side projects
- ☐ Yes, I work on many different projects

**Logic: Hidden unless: IsMobile**

**When developing in Python, how often do you ...? (Optional)**

	<b>Often</b>	<b>From time to time</b>	<b>Never or Almost never</b>
use autocompletion in your editor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use a debugger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
refactor your code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use Version Control Systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use code linting (programs that analyze code for potential errors)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use Python virtual environments for your projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use SQL databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use NoSQL databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
run / debug or edit code on remote machines (remote hosts, VMs, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use a Python profiler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

write tests for your code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use code coverage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use optional type hinting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use Continuous Integration tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
use Issue Trackers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Page entry logic:** This page will show when: #27 Question "What is the main editor you use for your current Python development?" is not one of the following answers ("None")

## Page 10

**How did you first learn about [question('value'), id='298']?**

- ☐ Social network
- ☐ Friend / Colleague
- ☐ School / University
- ☐ Advertising
- ☐ Search engines
- ☐ Technical review / Forum / Blog
- ☐ Conference / User Group
- ☐ Other – Write In:: \_\_\_\_\_ \*
- ☐ I don't remember

**How often do you use [question('value'), id='298']?**

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Less frequently

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## Page 11

**Logic: Show/hide trigger exists.**

**Most of the time, do you ...? \***

- ☐ Work in a team
- ☐ Work on your own project(s) independently
- ☐ Work as an external consultant or trainer

**Logic: Hidden unless: #37 Question "Most of the time, do you ...? " is one of the following answers ("Work in a team")**

**How many people are in your project team?\***

- ☐ 2-7 people
- ☐ 8-12 people
- ☐ 13-20 people
- ☐ 21-40 people
- ☐ More than 40 people

**Logic: Show/hide trigger exists.**

**What is your employment status?\***

- ☐ Fully employed by a company / organization
- ☐ Partially employed by a company / organization
- ☐ Self-employed (*a person earning income directly from one's own business, trade, or profession*)
- ☐ Freelancer (*a person pursuing a profession without a long-term commitment to any one employer*)
- ☐ Working student
- ☐ Student
- ☐ Retired
- ☐ Other – Write In:: \_\_\_\_\_ \*

**Logic: Hidden unless: #39 Question "What is your employment status?" is one of the following answers ("Fully employed by a company / organization", "Partially employed by a company / organization", "Self-employed (*a person earning income directly from one's own business, trade, or profession*)", "Working student")**

**How many people work for your company / organization?\***

- ☐ Just me
- ☐ 2–10
- ☐ 11–50
- ☐ 51–500
- ☐ 501–1,000
- ☐ 1,001–5,000
- ☐ More than 5,000
- ☐ Not sure

**Logic: Hidden unless: #39 Question "What is your employment status?" is one of the following answers ("Fully employed by a company / organization", "Partially employed by a company / organization", "Self-employed (*a person earning income directly from one's own business, trade, or profession*)", "Working student")**

**Which of the following industries best describes your company's business?**

**Logic: Show/hide trigger exists.**

**Choose one from the list:\***

- ☐ Accounting / Finance / Insurance
- ☐ Administration / Management
- ☐ Banking / Real Estate / Mortgage Financing
- ☐ Business / Strategic Management
- ☐ Construction / Architecture
- ☐ Customer Support
- ☐ Design
- ☐ Education / Training
- ☐ Human Resources
- ☐ Information Technology / Software Development
- ☐ Law
- ☐ Logistics/ Transportation
- ☐ Machinery



- ☐ Manufacturing
- ☐ Marketing
- ☐ Medicine / Health
- ☐ Non-profit
- ☐ Publishing
- ☐ Restaurants / Hospitality
- ☐ Sales / Distribution / Business Development
- ☐ Science
- ☐ Security
- ☐ Service/ Maintenance
- ☐ Other

**Logic: Hidden unless: Question "Choose one from the list:" is one of the following answers ("Other")**

**Other - Write In::** \_\_\_\_\_

**Logic: Hidden unless: (#39 Question "What is your employment status?" is one of the following answers ("Fully employed by a company / organization", "Partially employed by a company / organization", "Self-employed (*a person earning income directly from one's own business, trade, or profession*)", "Working student") AND Question "Choose one from the list:" is one of the following answers ("Information Technology / Software Development"))**

**Which of the following industries do you develop for?**

**Logic: Show/hide trigger exists.**

**Choose one from the list:\***

- ☐ Accounting / Finance / Insurance
- ☐ Administration / Management
- ☐ Banking / Real Estate / Mortgage Financing
- ☐ Business / Strategic Management
- ☐ Construction / Architecture
- ☐ Customer Support
- ☐ Design
- ☐ Education / Training
- ☐ Human Resources
- ☐ Information Technology / Software Development
- ☐ Law

- ☐ Logistics/ Transportation
- ☐ Machinery
- ☐ Manufacturing
- ☐ Marketing
- ☐ Medicine / Health
- ☐ Non-profit
- ☐ Publishing
- ☐ Restaurants / Hospitality
- ☐ Sales / Distribution / Business Development
- ☐ Science
- ☐ Security
- ☐ Service/ Maintenance
- ☐ Other

**Logic: Hidden unless: Question "Choose one from the list:" is one of the following answers ("Other")**

**Other - Write In:\*** \_\_\_\_\_

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## Page 12

**Logic: Hidden unless: #39 Question "What is your employment status?" is one of the following answers ("Fully employed by a company / organization", "Partially employed by a company / organization", "Self-employed (*a person earning income directly from one's own business, trade, or profession*)", "Freelancer (*a person pursuing a profession without a long-term commitment to any one employer*)")**

**Which of the following best describes your job role(s)?\***

- ☐ DBA
- ☐ Architect
- ☐ QA engineer
- ☐ Developer / Programmer
- ☐ Technical writer
- ☐ Technical support
- ☐ Data analyst
- ☐ Business analyst

- ☐ Team lead
  - ☐ Product manager
  - ☐ CIO / CEO / CTO
  - ☐ Systems analyst
  - ☐ Other – Write In:: \_\_\_\_\_ \*
- 

## Page 13

### Could you tell us your age range?\*

- ☐ 17 or younger
- ☐ 18–20
- ☐ 21–29
- ☐ 30–39
- ☐ 40–49
- ☐ 50–59
- ☐ 60 or older

### What country do you live in?\*

- ☐ Afghanistan
- ☐ Albania
- ☐ Algeria
- ☐ Andorra
- ☐ Angola
- ☐ Antigua and Barbuda
- ☐ Argentina
- ☐ Armenia
- ☐ Australia
- ☐ Austria
- ☐ Azerbaijan
- ☐ Bahamas, The
- ☐ Bahrain
- ☐ Bangladesh

- ☐ Barbados
- ☐ Belarus
- ☐ Belgium
- ☐ Belize
- ☐ Benin
- ☐ Bhutan
- ☐ Bolivia
- ☐ Bosnia and Herzegovina
- ☐ Botswana
- ☐ Brazil
- ☐ Brunei
- ☐ Bulgaria
- ☐ Burkina Faso
- ☐ Burundi
- ☐ Cambodia
- ☐ Cameroon
- ☐ Canada
- ☐ Cape Verde
- ☐ Central African Republic
- ☐ Chad
- ☐ Chile
- ☐ China
- ☐ Colombia
- ☐ Comoros
- ☐ Congo, Democratic Republic of the
- ☐ Congo, Republic of the
- ☐ Costa Rica
- ☐ Cote d'Ivoire
- ☐ Croatia
- ☐ Cuba
- ☐ Curacao
- ☐ Cyprus
- ☐ Czech Republic
- ☐ Denmark
- ☐ Djibouti
- ☐ Dominica
- ☐ Dominican Republic

- ☐ East Timor (see Timor-Leste)
- ☐ Ecuador
- ☐ Egypt
- ☐ El Salvador
- ☐ Equatorial Guinea
- ☐ Eritrea
- ☐ Estonia
- ☐ Ethiopia
- ☐ Fiji
- ☐ Finland
- ☐ France
- ☐ Gabon
- ☐ Gambia, The
- ☐ Georgia
- ☐ Germany
- ☐ Ghana
- ☐ Greece
- ☐ Grenada
- ☐ Guatemala
- ☐ Guinea
- ☐ Guinea-Bissau
- ☐ Guyana
- ☐ Haiti
- ☐ Holy See
- ☐ Honduras
- ☐ Hong Kong
- ☐ Hungary
- ☐ Iceland
- ☐ India
- ☐ Indonesia
- ☐ Iran
- ☐ Iraq
- ☐ Ireland
- ☐ Israel
- ☐ Italy
- ☐ Jamaica
- ☐ Japan

- ☐ Jordan
- ☐ Kazakhstan
- ☐ Kenya
- ☐ Kiribati
- ☐ Kosovo
- ☐ Kuwait
- ☐ Kyrgyzstan
- ☐ Laos
- ☐ Latvia
- ☐ Lebanon
- ☐ Lesotho
- ☐ Liberia
- ☐ Libya
- ☐ Liechtenstein
- ☐ Lithuania
- ☐ Luxembourg
- ☐ Macau
- ☐ Macedonia
- ☐ Madagascar
- ☐ Malawi
- ☐ Malaysia
- ☐ Maldives
- ☐ Mali
- ☐ Malta
- ☐ Marshall Islands
- ☐ Mauritania
- ☐ Mauritius
- ☐ Mexico
- ☐ Micronesia
- ☐ Moldova
- ☐ Monaco
- ☐ Mongolia
- ☐ Montenegro
- ☐ Morocco
- ☐ Mozambique
- ☐ Myanmar
- ☐ Namibia

- ☐ Nauru
- ☐ Nepal
- ☐ Netherlands
- ☐ Netherlands Antilles
- ☐ New Zealand
- ☐ Nicaragua
- ☐ Niger
- ☐ Nigeria
- ☐ North Korea
- ☐ Norway
- ☐ Oman
- ☐ Pakistan
- ☐ Palau
- ☐ Palestinian Territories
- ☐ Panama
- ☐ Papua New Guinea
- ☐ Paraguay
- ☐ Peru
- ☐ Philippines
- ☐ Poland
- ☐ Portugal
- ☐ Qatar
- ☐ Romania
- ☐ Russia
- ☐ Rwanda
- ☐ Saint Kitts and Nevis
- ☐ Saint Lucia
- ☐ Saint Vincent and the Grenadines
- ☐ Samoa
- ☐ San Marino
- ☐ Sao Tome and Principe
- ☐ Saudi Arabia
- ☐ Senegal
- ☐ Serbia
- ☐ Seychelles
- ☐ Sierra Leone
- ☐ Singapore

- ☐ Slovakia
- ☐ Slovenia
- ☐ Solomon Islands
- ☐ Somalia
- ☐ South Africa
- ☐ South Korea
- ☐ South Sudan
- ☐ Spain
- ☐ Sri Lanka
- ☐ Sudan
- ☐ Suriname
- ☐ Swaziland
- ☐ Sweden
- ☐ Switzerland
- ☐ Syria
- ☐ Taiwan
- ☐ Tajikistan
- ☐ Tanzania
- ☐ Thailand
- ☐ Timor-Leste
- ☐ Togo
- ☐ Tonga
- ☐ Trinidad and Tobago
- ☐ Tunisia
- ☐ Turkey
- ☐ Turkmenistan
- ☐ Tuvalu
- ☐ Uganda
- ☐ Ukraine
- ☐ United Arab Emirates
- ☐ United Kingdom
- ☐ United States
- ☐ Uruguay
- ☐ Uzbekistan
- ☐ Vanuatu
- ☐ Venezuela
- ☐ Vietnam



- ☐ Yemen
- ☐ Zambia
- ☐ Zimbabwe

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If there's anything you'd like to discuss with us concerning this survey, please email us at [surveys@jetbrains.com](mailto:surveys@jetbrains.com).