Julia: A new programming language
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There's diversity in the world of programming languages, and often, the problem for mathematicians, researchers and data scientists is to find a single language that suits practically any task at hand. To avoid the difficulties, co-founders of a Bengaluru and U.S.-based startup, Julia Computing, developed a general purpose programming language -- Julia -- that can be used by those who aren't programmers by training. "Julia is much faster and easier to use than other languages, with unlimited scalability," says Stefan Karpinski, co-founder of Julia Computing.

The best of both worlds

Typically, programming languages on numerical computing are split into two groups: static languages such as C, C++ and Fortran, which are fast for execution but slow for development, and dynamic languages such as Python, R and Matlab, which are often slow in their execution but enable rapid development. Offering the best of both worlds, Karpinski claims it has solved the "two-language problem." "We were greedy for a language that is as fast as C++, with the high-level functionality of Python, R or Matlab. And so we created a single language -- Julia -- that allows us to do prototyping and production in the same language," says Karpinski. Not surprisingly then, Julia's adoption is growing rapidly. "User adoption has exceeded our forecasts," says Karpinski.

How it started

It all started in 2009, when Karpinski, with Shah, a fellow grad student at the University of California Santa Barbara, and Bezanson and Edelman from the MIT -- all with experience in language design and applied mathematics -- were looking to simplify the coding process. Since Shah moved to Bengaluru to work on India's Aadhaar project, the country's new biometric identification system, they created their "dream language" largely over email.

The first public version of Julia, made with the help from over a 100 open-source contributors, was released in 2012. "The open source project was started to democratize programming, but to meet market demand for commercial products, we founded Julia Computing," says Shah.

Keeping up with demand for new product features and packages is the biggest challenge, says Shah. "It takes anywhere from a few months to a year to create a product, and each product is continually improved to leverage the newest developments and improvements in the Julia open source language and to provide additional features requested by our customers and users."

Even if the dominance of Java and C++ is unlikely to be shaken, Julia is still finding its niche among today's programming languages.

Read the above text and answer the following questions.

- What is diversity in the world of programming languages?
- Why would one single language be appreciated? As a programmer do you think it is possible to achieve this?
- What does unlimited scalability mean?
- What are the advantages of Julia according to the article?
- What does open source mean?
- Explain in your own words the two groups of programmng languages in numerical computing.
- What is your opinion on Julia.