

Hello World

An introduction to programming.

Marc Groenewegen & Wouter Ensink, 21.02.2023

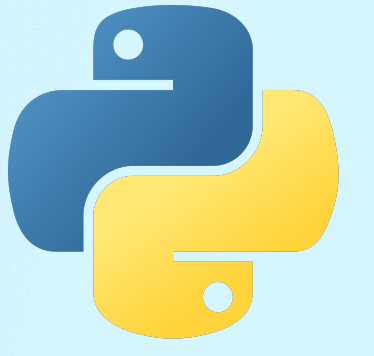
Python

“Simple is better than complex, complex is better than complicated.”

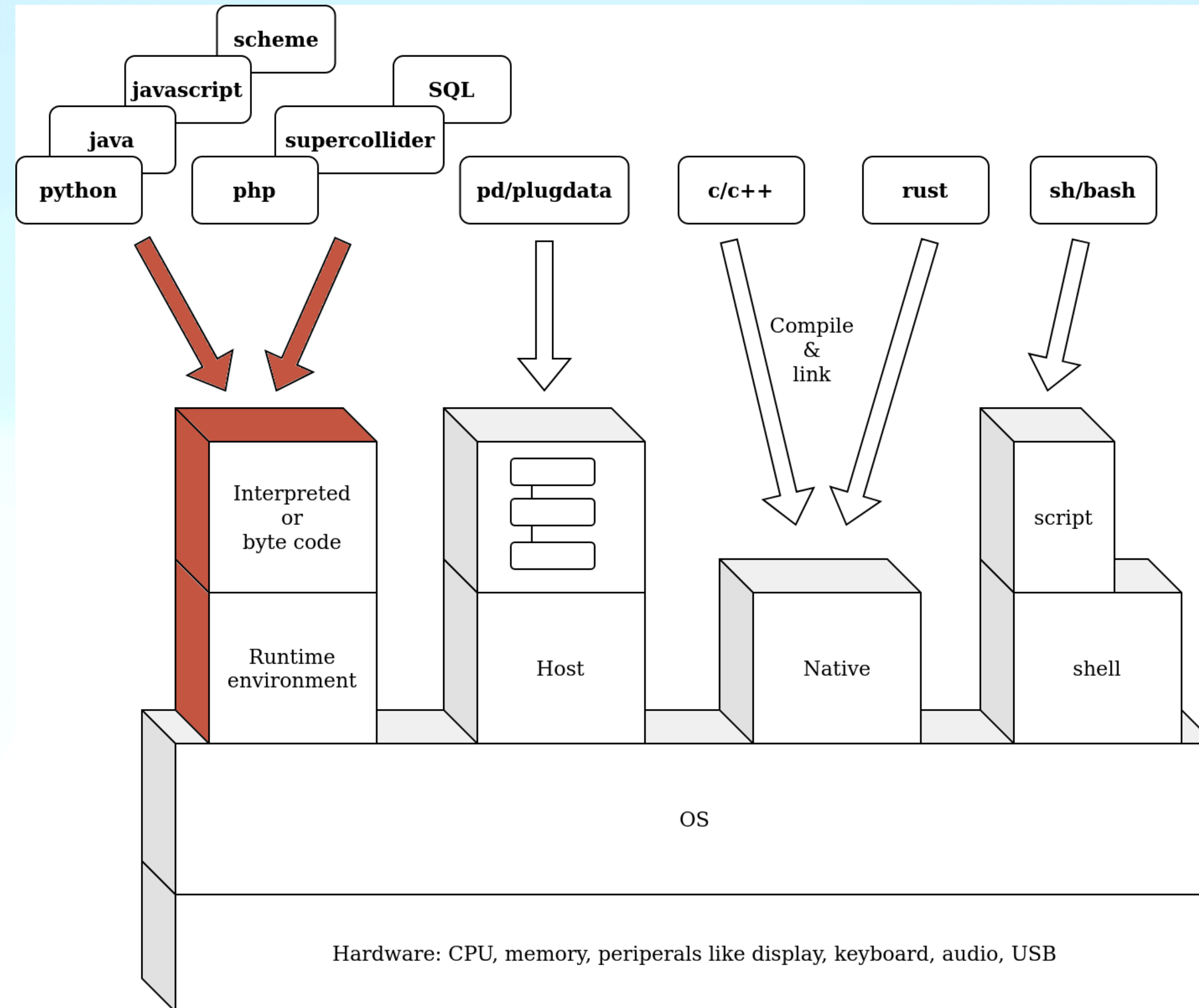
- Guido van Rossum, Centrum Wiskunde & Informatica (1991)
- Interpreted
- Python 2 vs Python 3
- Gebruikt voor:
 - Data science/ML/AI
 - scripting tasks
 - simpele games
 - webservers



Python



“Simple is better than complex, complex is better than complicated.”



C

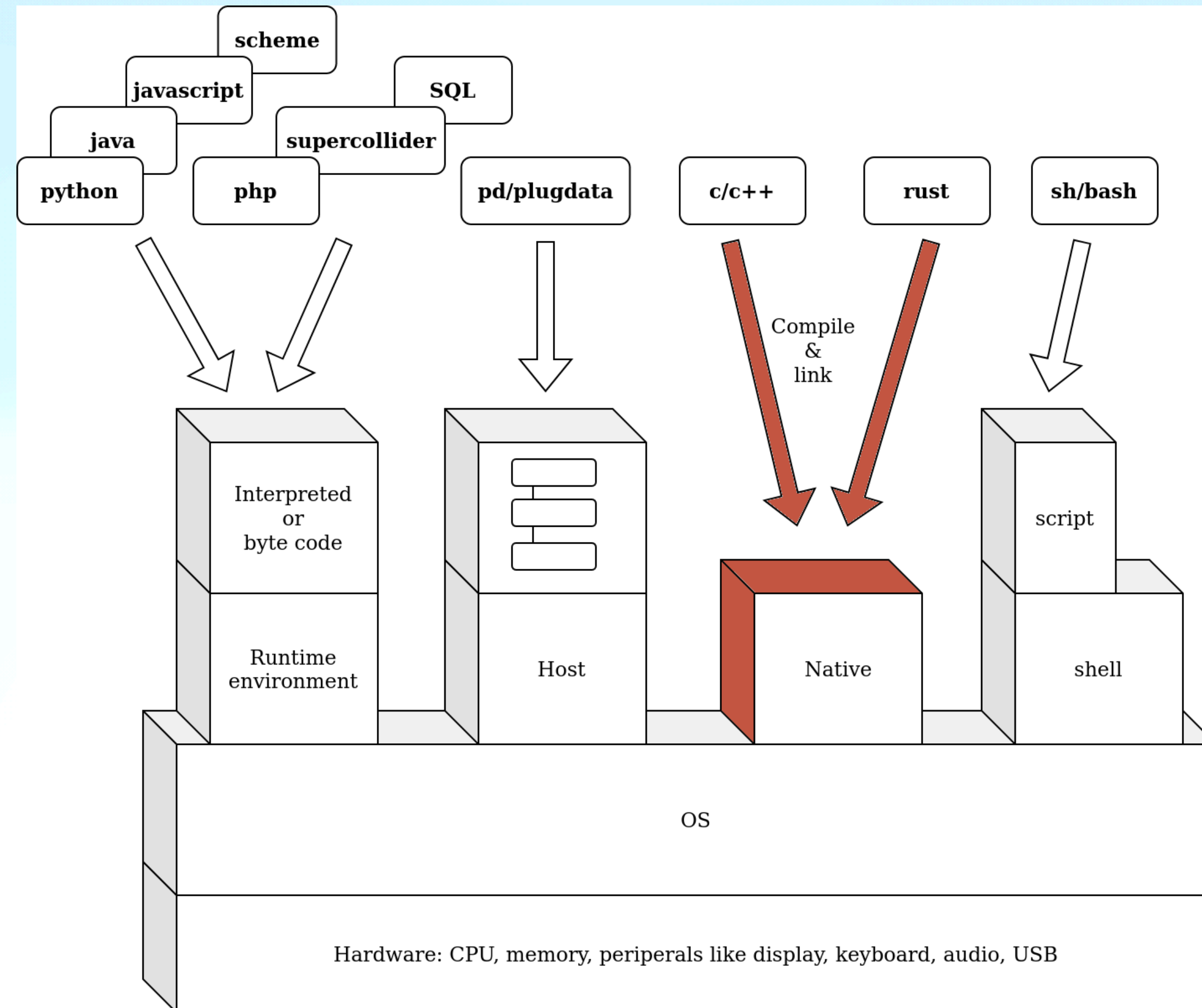
“If it works, don’t fix it.”

- Dennis Richie, Bell Labs (1972)
- ISO
- Gecompileerd (naar machine code)
- Gebruikt voor:
 - OS/firmware/drivers
 - Compilers & interpreters
 - Servers
 - Audio/video/games
 - Machine Learning
- Compilers: GCC, Clang, MSVC



C

“If it works, don’t fix it.”



C++

**“C makes it easy to shoot yourself in the foot;
C++ makes it harder, but when you do you blow your whole leg off.”**

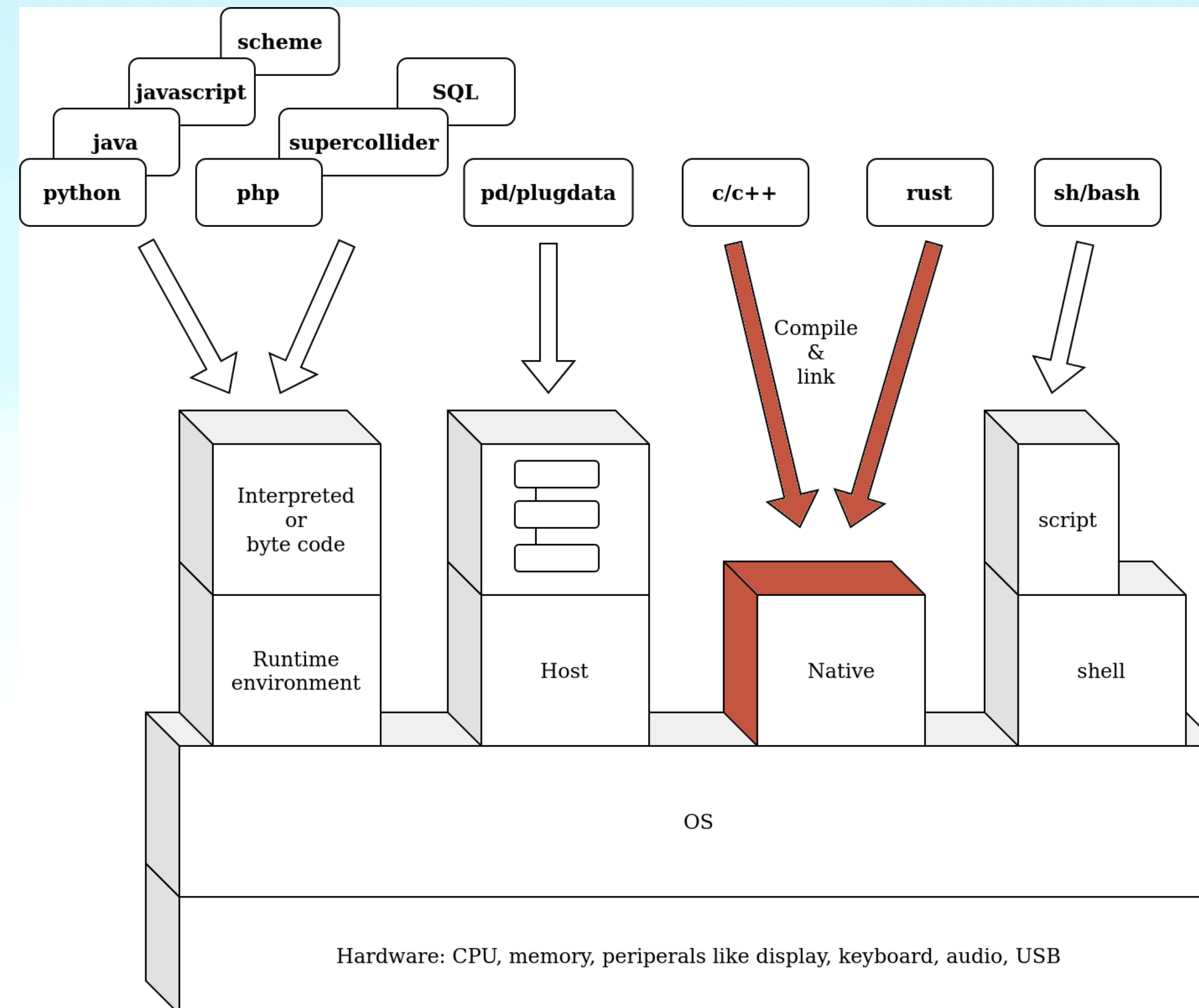
- Bjarne Stroustrup, Bell Labs (1985)
- ISO
- Gecompileerd (naar machine code)
- Gebruikt voor:
 - OS/firmware/drivers
 - Compilers & interpreters
 - Webrowsers
 - Servers
 - Audio/video/games
 - Machine Learning
- Compilers: GCC, Clang, MSVC



C++



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JavaScript

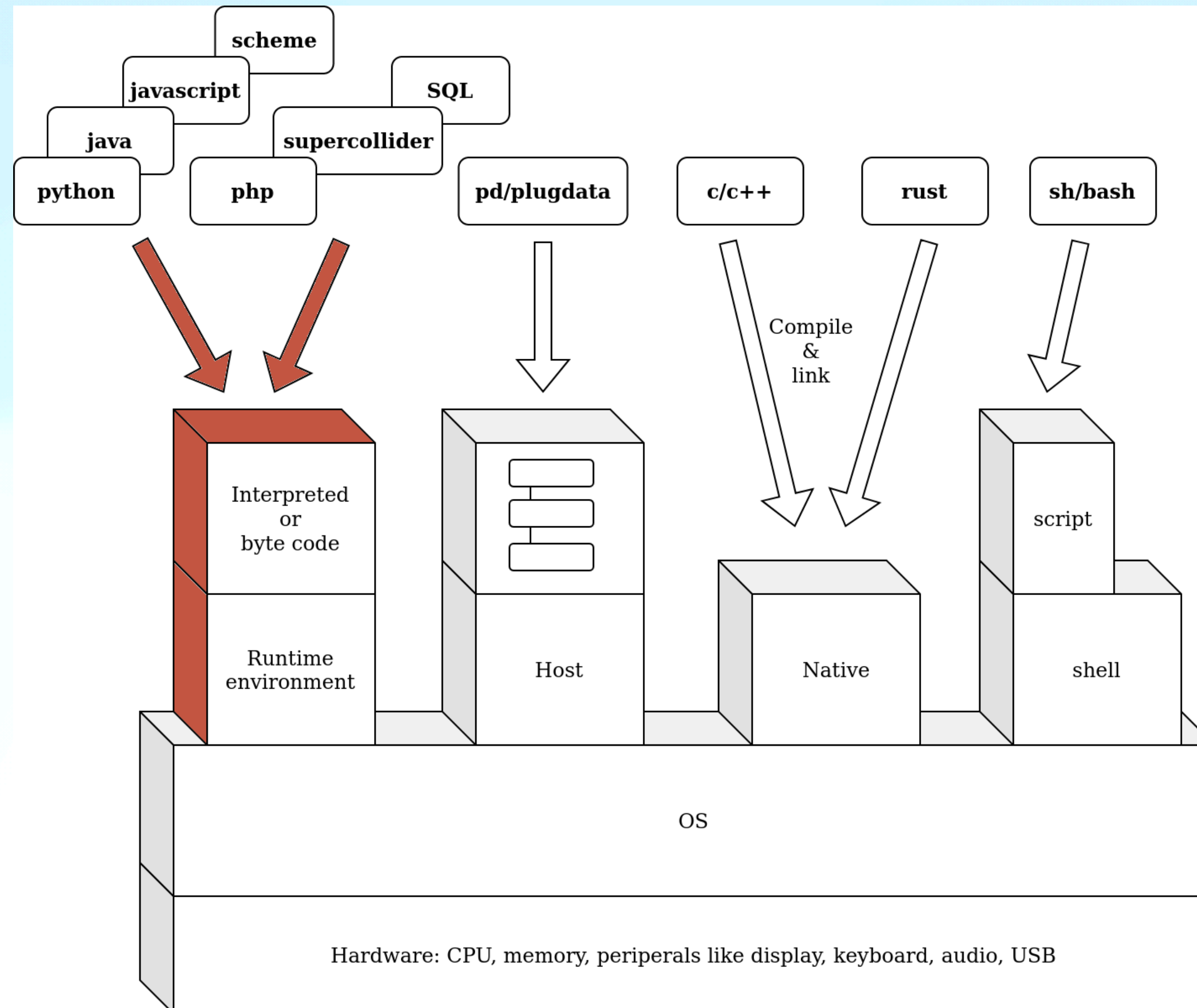
“The programming language of the web.”

- Brendan Eich, Netscape (1995)
- Interpreted
 - Webrowsers
 - NodeJs, Dino
- Gebruikt voor:
 - Websites (frontend & backend)
 - Desktop/mobile apps (electron & react native)



JavaScript

“The programming language of the web.”

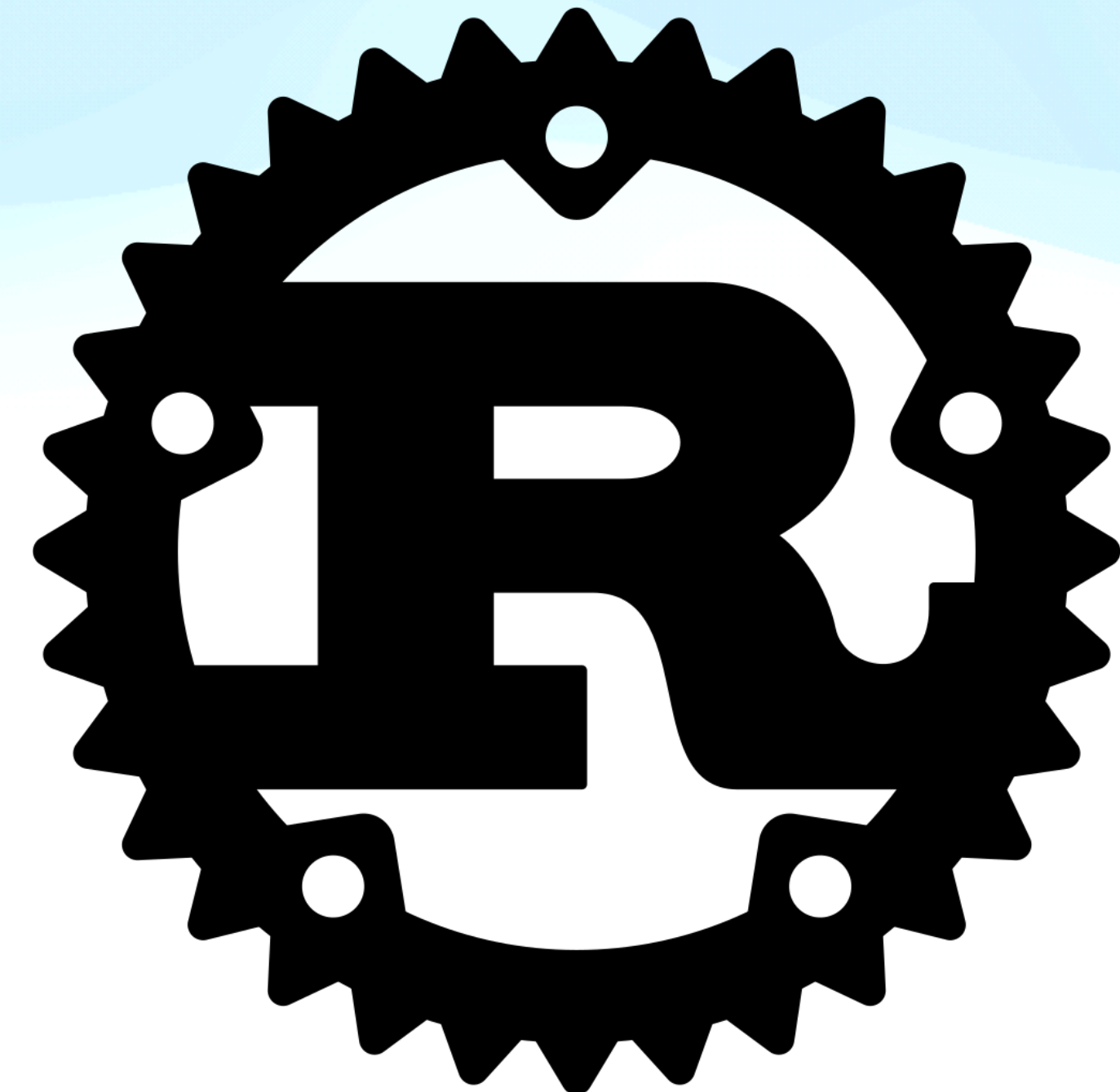


Rust

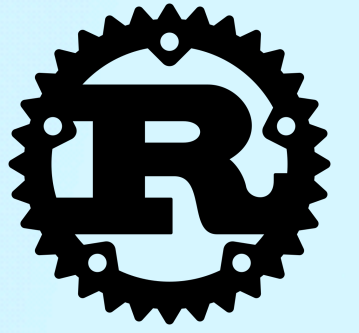
“A language empowering everyone to build reliable and efficient software”

- Graydon Hoare, Firefox (2010)
- Gecompileerd (naar machine code)
- Most loved language (sinds 2016)
- Veilig & strict
- Cargo
- Gebruikt voor:
 - Vrijwel alles

| | | |
|------------|--------|--------|
| Rust | 86.73% | 13.27% |
| Elixir | 75.46% | 24.54% |
| Clojure | 75.23% | 24.77% |
| TypeScript | 73.46% | 26.54% |
| Julia | 72.51% | 27.49% |
| Python | 67.34% | 32.66% |
| Delphi | 65.51% | 34.49% |
| Go | 64.58% | 35.42% |
| SQL | 64.25% | 35.75% |
| C# | 63.39% | 36.61% |
| Kotlin | 63.29% | 36.71% |
| Swift | 62.88% | 37.12% |
| Dart | 62.16% | 37.84% |
| HTML/CSS | 62.09% | 37.91% |
| Solidity | 62.08% | 37.92% |
| JavaScript | 61.46% | 38.54% |



Rust



“A language empowering everyone to build reliable and efficient software”

