

# CS50 for MBAs

Technology Stacks

# Thank you!

- Maria, Valerie
- Tommy, Brian
- Benjamin, Fianko, Hanna, Mohammed, Robert, Seeam
- Ian, Tara, Andrew, Rongxin, Arturo

# evaluations

[hbs.bluera.com/hbs](https://hbs.bluera.com/hbs)

# CS50 for MBAs

Technology Stacks

# Themes

- Abstraction
- Correctness
- Efficiency
- Precision
- Representation
- Tradeoffs
- ...

# Technology Stacks

# Lectures

- Computational Thinking
- Algorithms
- Python
- Data Structures
- Internet Technologies
- Web Development
- SQL
- Databases
- Cloud Computing
- Privacy, Security
- Artificial Intelligence
- Software Engineering
- Technology Stacks

- development environment
- language
- version control
- code reviews
- platform
- database
- back-end framework
- front-end framework
- collaboration
- deploying
- monitoring
- caching
- scaling
- testing
- security
- ...



# Developer Survey Results

[insights.stackoverflow.com/survey/2020](https://insights.stackoverflow.com/survey/2020)

# development environment

- Linux
- macOS
- Windows
- ...

# Developers' Primary Operating Systems



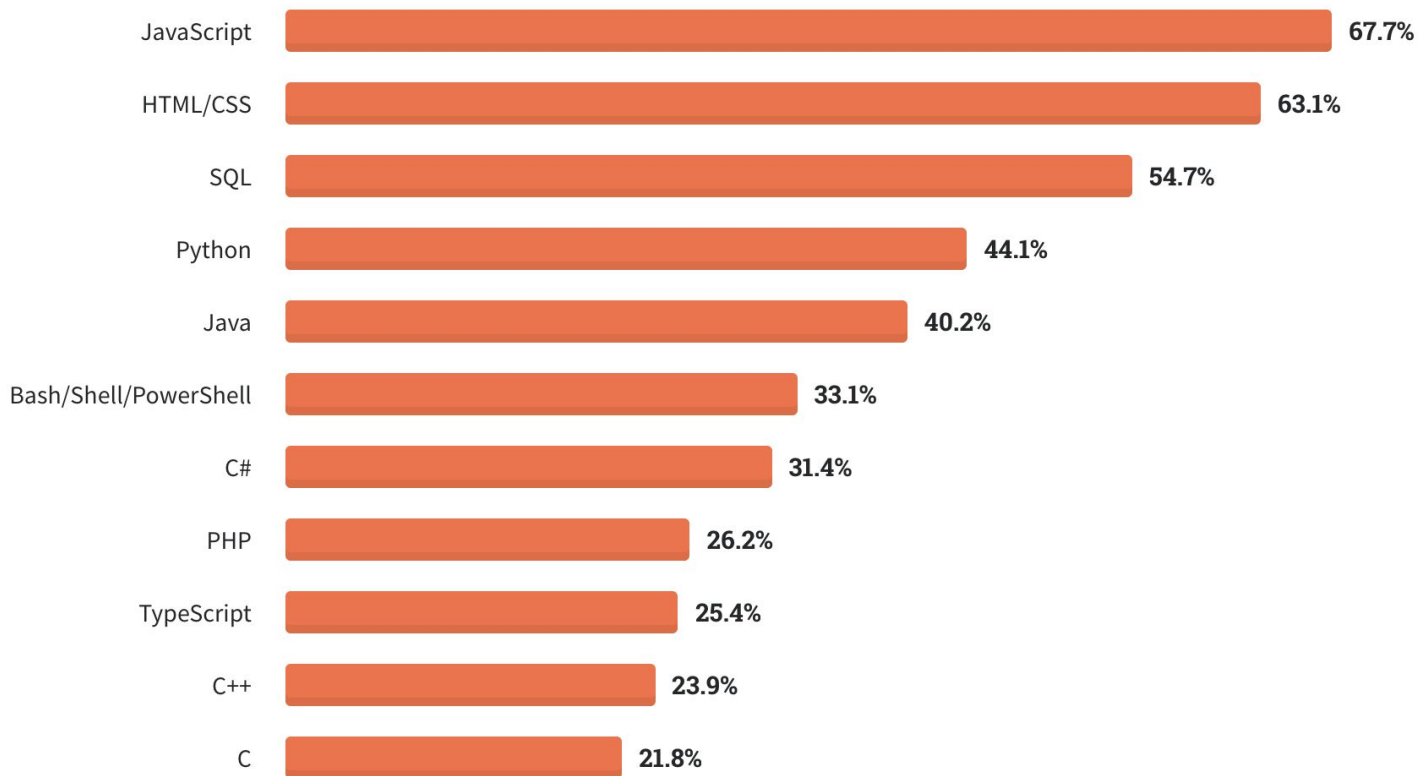
# development environment

- VS Code
- Atom
- Visual Studio
- ...

# language

- Java, Kotlin
- Swift, Objective-C
- Python, Ruby, Java, PHP
- HTML, CSS, JavaScript, TypeScript
- SQL
- C, C++, C#
- Go, R
- ...

# Programming, Scripting, and Markup Languages



# version control

- GitHub
- GitLab
- Bitbucket
- ...

# code reviews

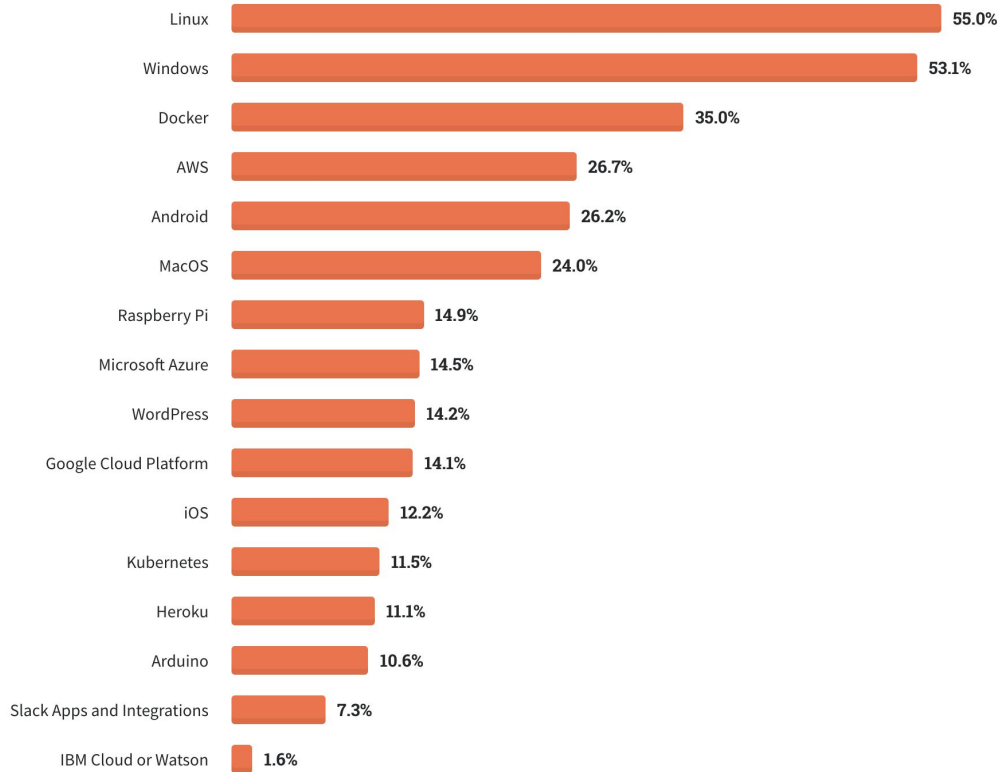
- GitHub, GitLab, et al.
- Phabricator
- ...



# platform

- Amazon, Google, Microsoft, ...
- Digital Ocean, Heroku, ...

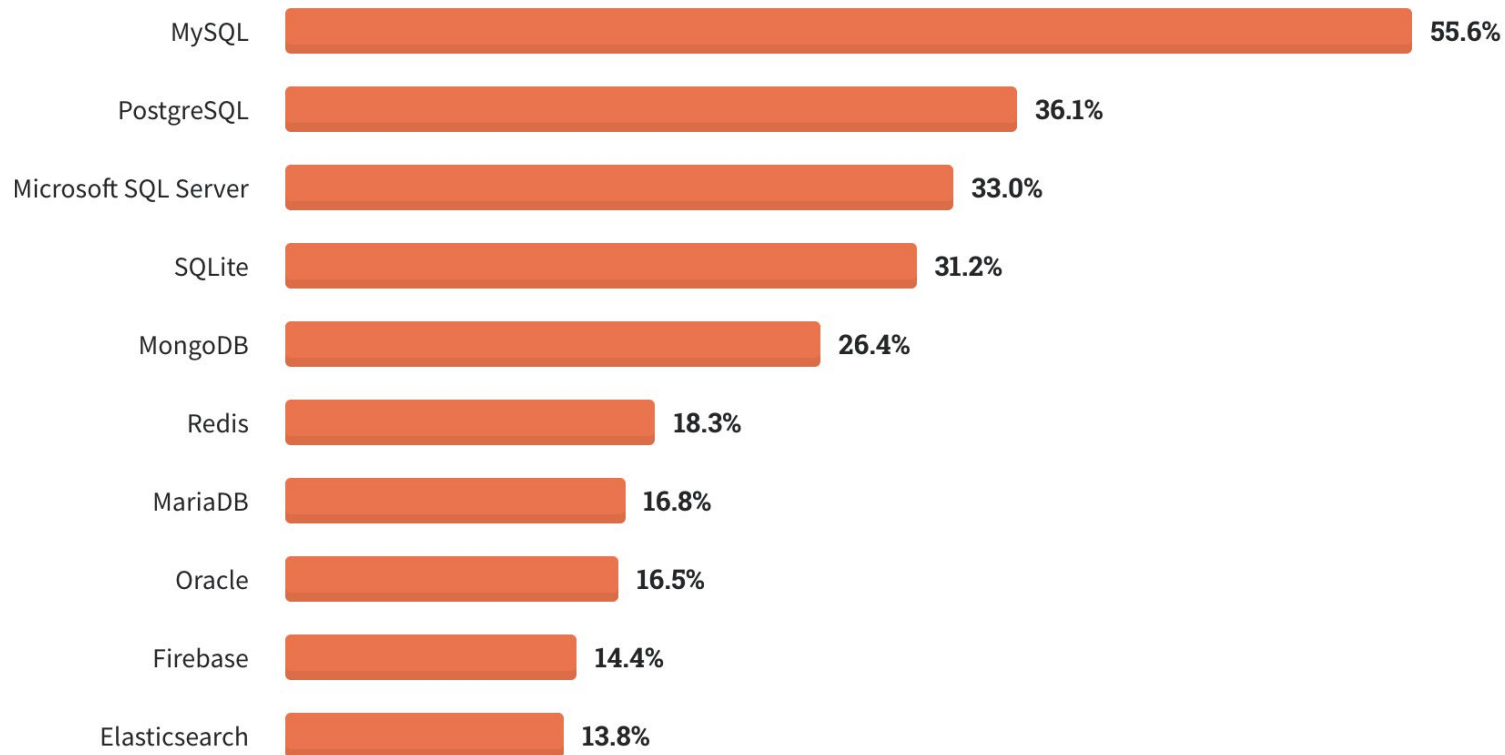
# Platforms



# database

- SQL
  - MySQL, PostgreSQL, Microsoft Access, Oracle, ...
- NoSQL
  - MongoDB, Redis, ...

# Databases



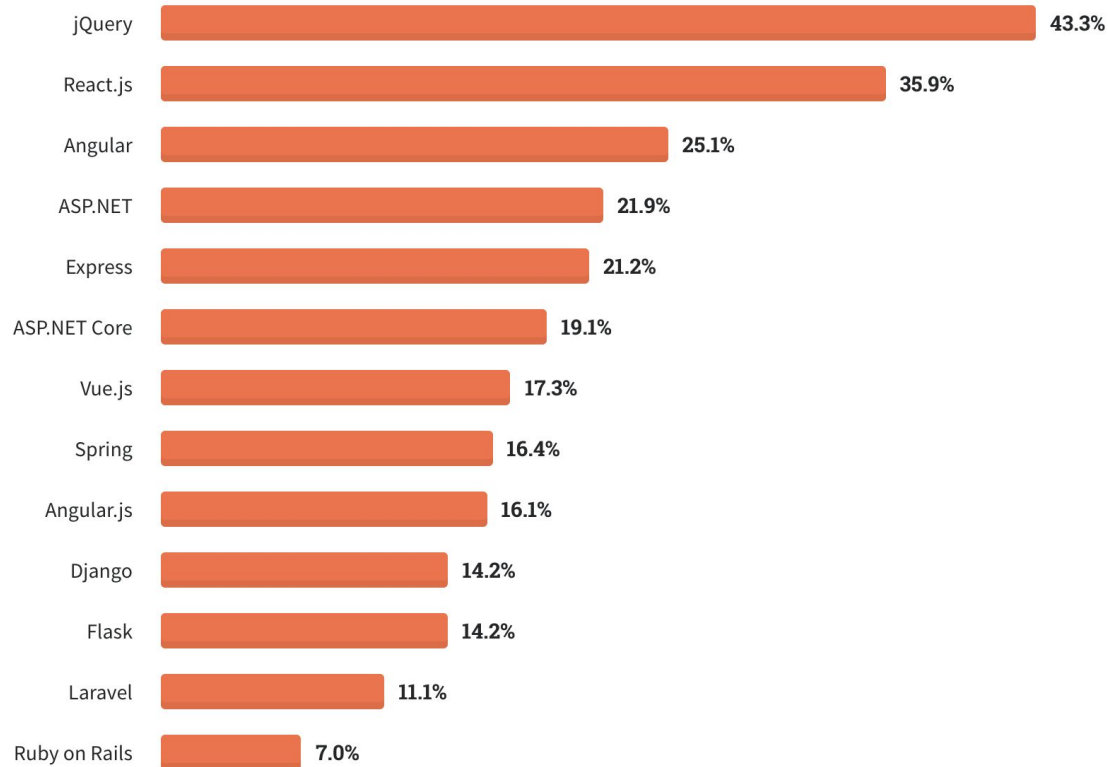
# back-end framework

- Django, Flask
- Ruby on Rails
- Node.js, Express.js
- .NET
- ...

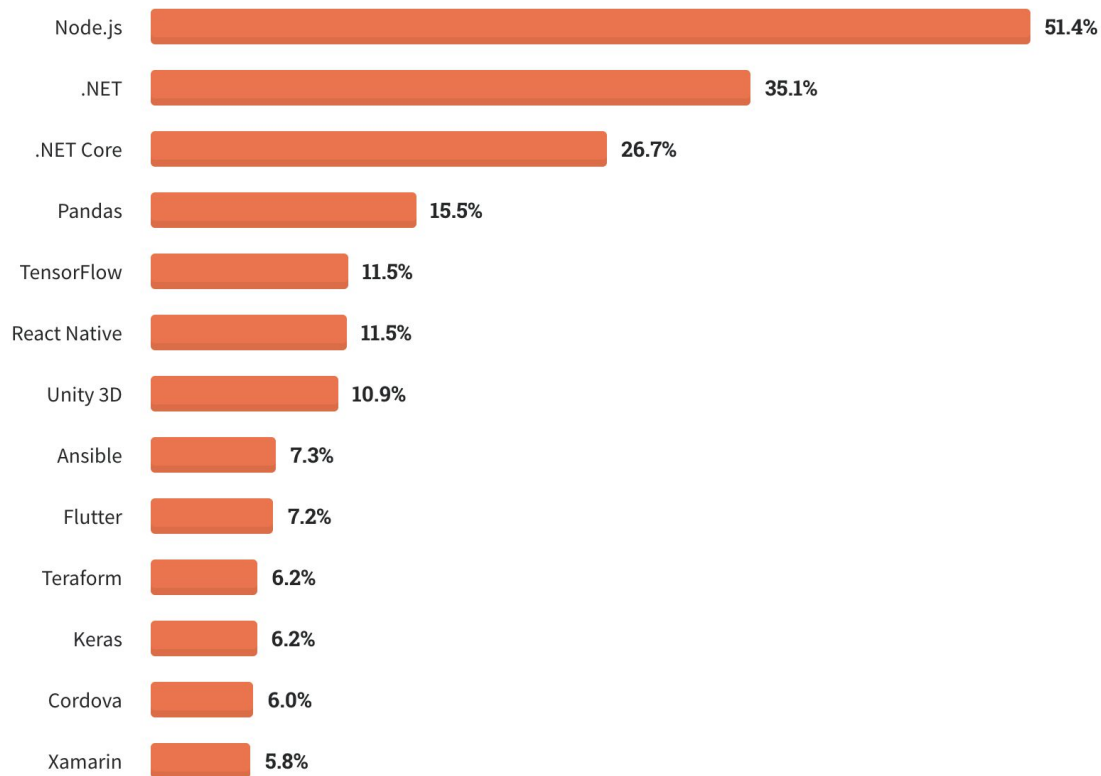
# front-end framework

- Bootstrap, Foundation, Material
- React, Vue, Angular
- ...

# Web Frameworks



# Other Frameworks, Libraries, and Tools

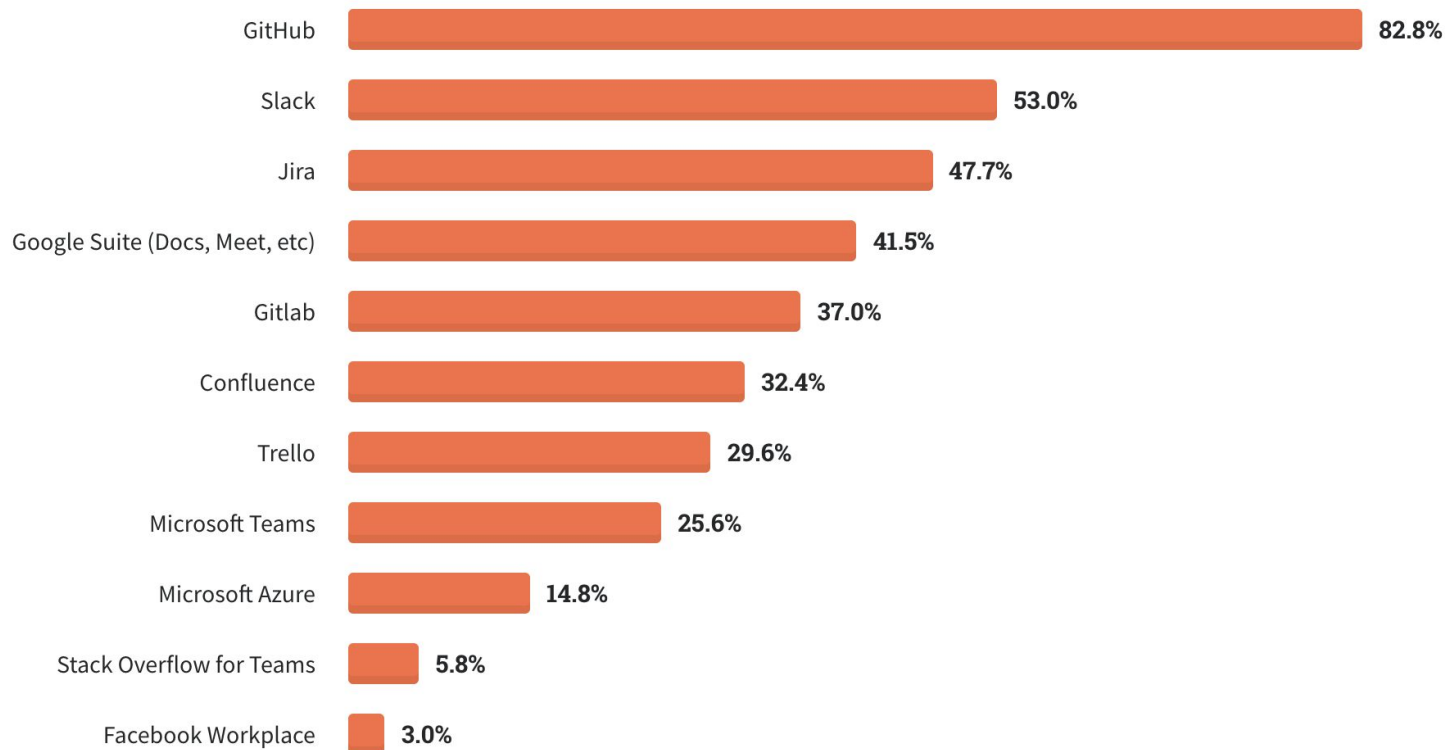




# collaboration

- GitHub, GitLab, Bitbucket
- ...

# Collaboration tools



# deploying

- on-premise
- colocation
- cloud

# deploying

- CI/CD
- GitHub, GitLab, Bitbucket
- ...

# monitoring

- Pingdom
- ...

# caching

- Redis
- Memcache
- ...

# scaling

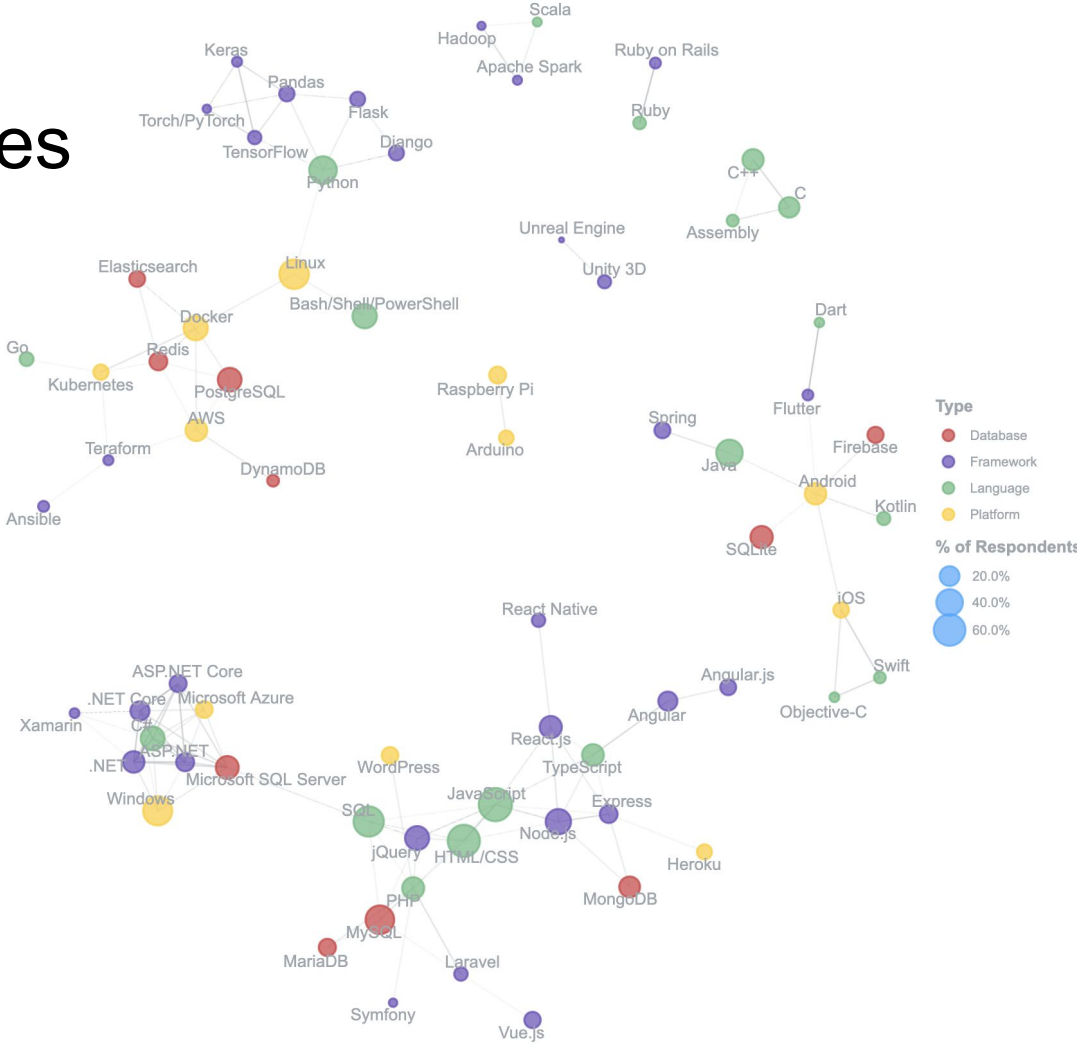
- Availability
- Redundancy
- Single points of failure
- Horizontal vs vertical
- ...

# testing

- Unit tests
- Functional tests
- ...



# Correlated Technologies



# Next Steps

- [cs50.harvard.edu/x](https://cs50.harvard.edu/x)
- [cs50.harvard.edu/business](https://cs50.harvard.edu/business)
- [cs50.harvard.edu/law](https://cs50.harvard.edu/law)
- [cs50.harvard.edu/technology](https://cs50.harvard.edu/technology)
- ...

*The End*