Programming Language Trends

* Introduction
  + Brief history of programming languages
    - Mathematical expressions of programming languages
    - Conceptualization of programming
    - Early machine code
    - First high-level languages
    - Modern programming
  + How different languages affect the industry
* Body
  + What are some of the most popular programming languages today?
  + Drawing parallels between these languages
    - Programming paradigms
    - Supported features
    - Community support
    - Syntax similarities
    - Language age
    - Scalability
  + Do these common features help make a language more popular?
* Body
  + Outliers in these stats
    - Python
      * Slow
      * Takes more effort and thinking to really make it scalable
      * Unique syntax
      * Use in AI and ML
  + Biases against certain languages
    - PHP
      * Fast
      * Quick to develop
      * Familiar syntax
      * Built-in support for everything
    - JavaScript
      * Been around since 1995
      * One of the fastest languages around
      * Easy to learn
      * Only web option
      * Still hated?
* Body
  + So many languages, so many opinions, how does one get into CS?
    - All articles are heavily biased
    - Hard to find things based on real stats
    - It’s all a matter of opinion
  + Once you’ve learned a language, what if it’s a fad?
  + How should we learn to code if not by learning popular languages?
* Body
  + One universal language
    - Does it exist?
      * Machine code can do anything, but it’s low level and NOT something you want to be working in
    - Could it exist?
      * Something not overly verbose that’s still easy to use
    - Should it exist?
      * If you could make one high level language that could do everything, would it be too big? Too cumbersome?
      * Java tries to do everything, but that’s what’s killing it. It’s become too big and was never meant to do things like Android development.
* Conclusion
  + We should be teaching people to *think about code, without them getting too caught up in the syntax of it all.* 
    - Syntax doesn’t matter because all languages are different.
  + Could the CS department do this? It’s a technical school and learning the industry languages should be key. But would it make us better coders to ignore the syntax and learn to think first?