The future of languages

Conclusion for this course:

- That is all!
- My guess on where languages will be going: languages that combine:
  - Multiparadigm
  - High-level data structures
  - With: speed, simplicity (dynamic weakly typed)
- JavaScript frameworks, node.js, Google Go, Swift, and what else?
  - More and more languages every day!!! What should we learn? All!
    - Youtube is implemented with Python,
    - IBM Watson uses Prolog,
    - Wikipedia is implemented with PHP,
    - Microsoft F# is a functional programming language, etc.
- More Scripting Languages: Writing programs by coordinating pre-existing components, rather than writing components from scratch.
The future of languages

- Scripting-style:
  - **Speed**: Trade almost everything for developer productivity
  - **Economy of Expression**
  - **Lack of Declarations**
  - **Simple rules**
  - **Flexible dynamic typing**
  - **Access to the OS**
  - **Sophisticated string processing**
  - **High-level data structures**: Maps, Lists, Tuples, Sets.
  - **Batch and Interactive**
  - **Open and Portable**
  - **Single Canonical Implementation**
  - **Interpreted**: Fast to start
  - **Easily extended**
  - **Easily embedded**
Future is here
Future is here

Java on GPUs (Sumatra)

Multi-Tenancy

Java 9 ... and beyond

Modular Platform (Jigsaw)

Memory-Efficient Data Structures

Coroutines

Self-Tuning JVM

JNI 2.0

Press Esc to exit full screen mode.
The future of languages

- I'm hoping that this course prepared you for the change the future will bring in programming languages
- Thank you!