

# The future of languages includes logic programming

Conclusion for this course:

- That is all!
- My guess on where languages will be going: languages that combine:
  - **Multiparadigm** (functional, logical, imperative, scripting)
  - High-level data structures
  - **With: speed, simplicity** (dynamic weakly typed like Prolog, python, SML; input and output parameters)
  - 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,
    - Microsoft F# is a functional programming language, etc.

# 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

HTTP URL Permissions    Base64    Enhanced Verification Errors  
Improve Contended Locking    DocTree API    Prepare for Modularization  
**Lambda (JSR 335)**    Remove the Permanent Generation  
Generalized Target-Type Inference    **Date/Time API (JSR 310)**  
Bulk Data Operations    **Java 8**    Parallel Array Sorting  
Limited doPrivileged    Repeating Annotations  
**Compact Profiles**    Parameter Names    **Nashorn**  
Unicode 6.2    Configurable Secure-Random Number Generation  
TLS Server Name Indication    **Type Annotations (JSR 308)**  
Lambda-Form Representation for Method Handles    Fence Intrinsic

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# Future is here



Press Esc to exit full screen mode.

*Coroutines*

**Java on GPUs** (Sumatra)

*Self-Tuning JVM*

*Meta-Object Protocol*

*Multi-Tenancy*

**JNI 2.0**

**Java 9 ... and beyond**

**Modular Platform** (Jigsaw)

*More and More Ports*

*Tail Calls*

**Memory-Efficient Data Structures**

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Captions

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# The future of languages

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