

Programming languages evaluation criteria

Readability	overall simplicity, orthogonality, data types, syntax considerations
Writability	simplicity and orthogonality, expressivity
Reliability	type checking, exception handling, aliasing, readability and writability
Cost	training, writing, compilation, execution, implementation, reliability, maintenance

Other criteria: portability, generality, well-definedness

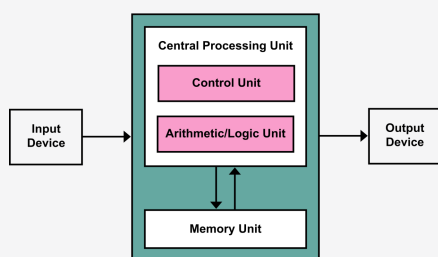
Why we study programming languages

- Increases our capacity to use different constructs
- Enables us to choose languages more intelligently
- Makes learning new languages easier
- Understanding of the significance of implementation
- Overall advancement of computing

Programming languages categories

Imperative	variables, assignments and interaction (C, Java, JS, Perl, ...)
Functional	computations via functions (LISP, Scheme, ML, F#, ...)
Logic	rule-based (ex: Prolog)
Markup/program- ming hybrid	markup extended to support programming (HTML, XML, JSTL, XSLT, ...)

von Neumann Architecture



Keep fetch-execute-cycle in mind

