



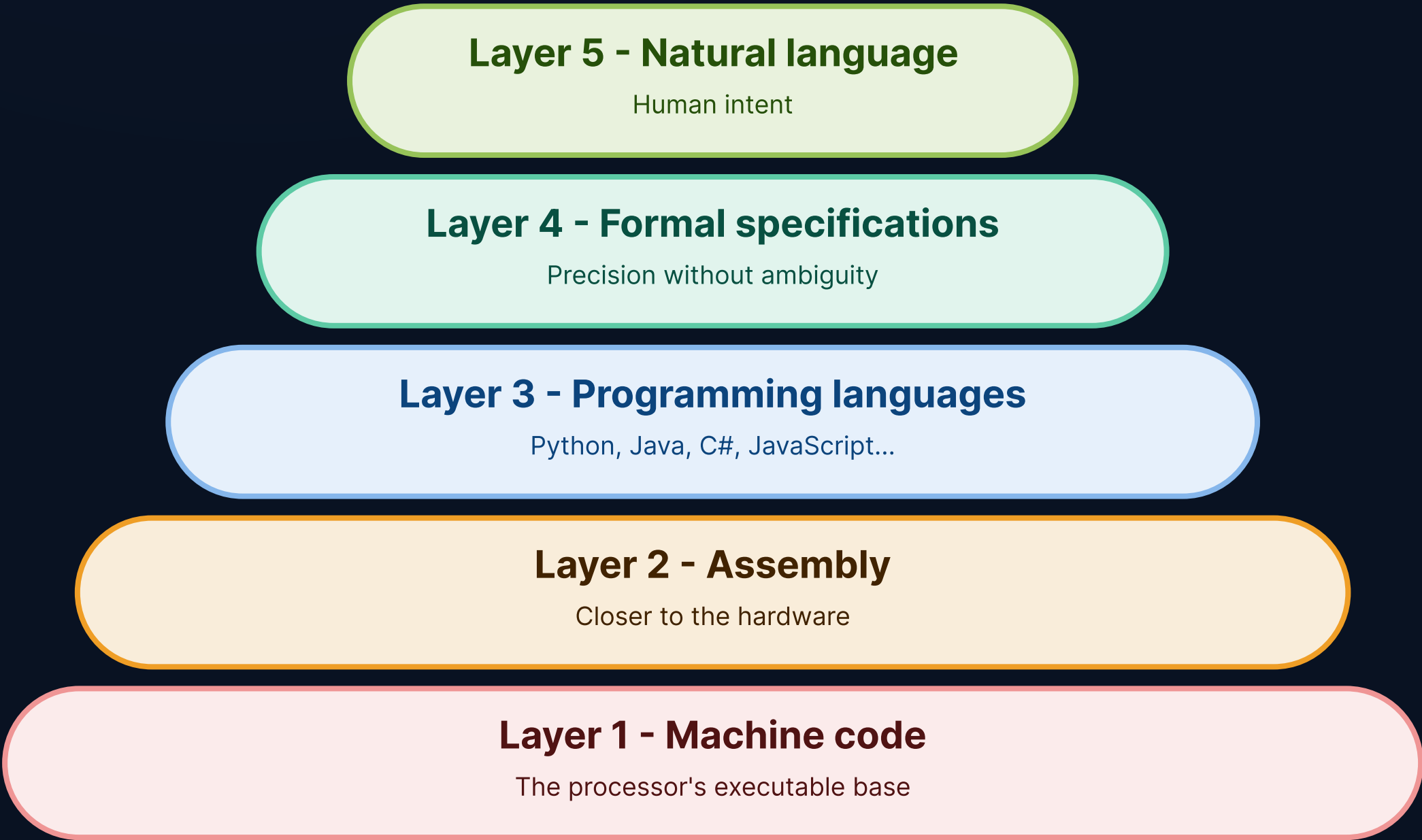
The abstraction ladder

Every historical leap in software has come from moving up one level of abstraction. Structura does not ask AI to write code directly: it validates first and only then generates.

- Structura operates between Layers 5 and 4
- Pure AI operates at Layer 3

ABSTRACTION LADDER (GRADY BOOCH)

From machine execution to human intent



ALL FIVE LAYERS, AT A GLANCE

- 5 Natural language**
Human entry point: rich in context, but ambiguous. Structura starts here, then steps carefully to Layer 4.
HUMAN INTENT NEEDS PRECISION
- 4 Formal specifications**
Structura validates intent inside a precise, compact, machine-checkable specification before generating code.
VALIDATE FIRST, GENERATE SECOND
- 3 Programming languages**
Where developers work today — and where pure AI generates code directly from natural-language intent.
DIRECT CODE GENERATION LIVES HERE
- 2 Assembly**
Still close to hardware, but far more legible for humans than raw machine instructions.
A FIRST STEP AWAY FROM THE CHIP
- 1 Machine code**
Ones and zeros executed directly by the processor. Compilers generate it for us.
THE LEVEL CLOSEST TO THE MACHINE