

# Software Tool Construction

Wintersemester 2023/24

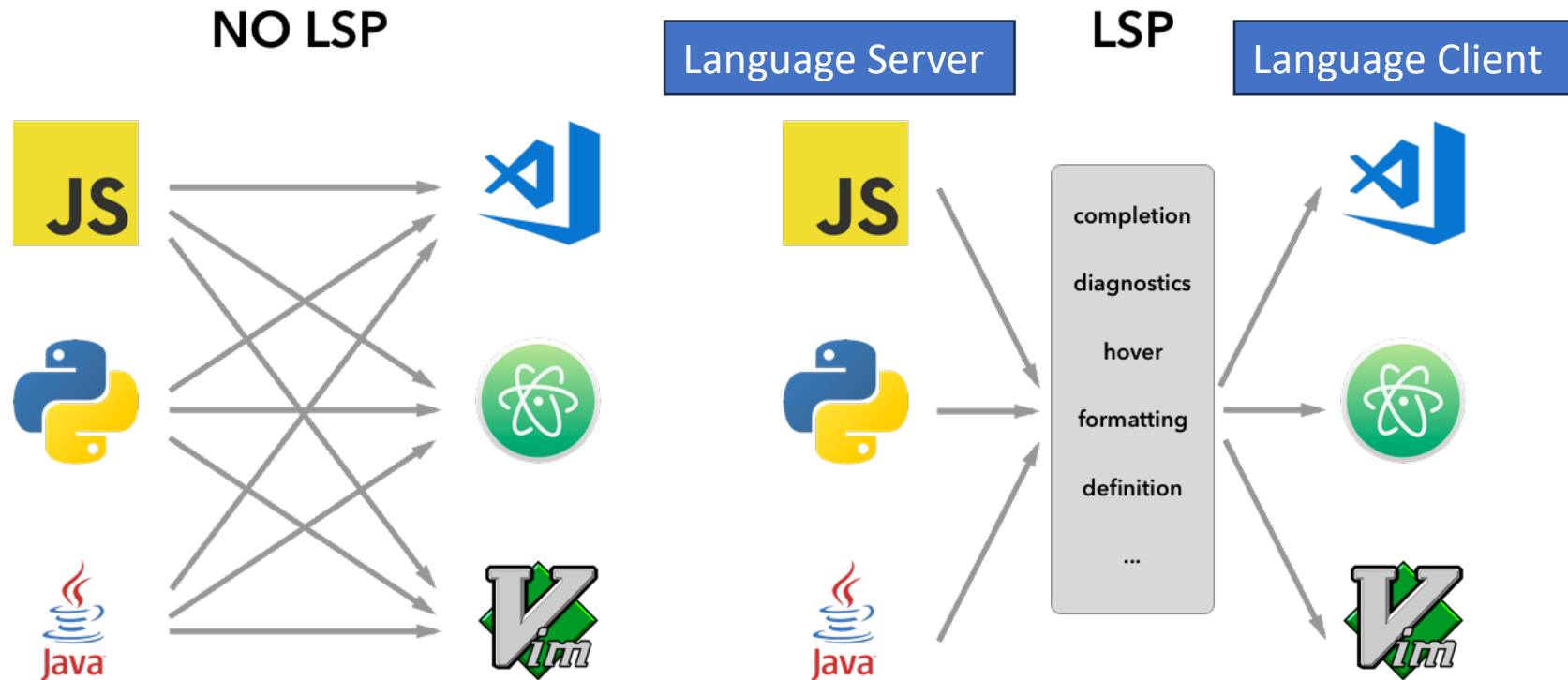
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Vorlesung 5

# Ablauf

- 1. Meilenstein: **Basics**
  - Nx Workspace
  - ANTLR Grammatik
  - Compiler in TypeScript
- 2. Meilenstein: **LSP**
  - Language Server
  - VSCode Extension
  - TextMate Syntax
- 3. Meilenstein: **Monaco**
  - Monarch Sprache
  - Monaco LSP Client
  - Angular Web App
- Evtl. Bonus: **Compiler Backend**
- Evtl. Bonus: **IntelliJ**
- Bonus: **MPS**
- **Projekt**

# Language Server Protocol



<https://code.visualstudio.com/api/language-extensions/language-server-extension-guide>

# Nützliche Links

- VSCode Extension package.json
  - Generelle Infos: <https://code.visualstudio.com/api/references/extension-manifest>
  - Contribution Points: <https://code.visualstudio.com/api/references/contribution-points>
- Syntax Highlighting
  - VSCode Guide: <https://code.visualstudio.com/api/language-extensions/syntax-highlight-guide>
  - TextMate Grammar: [https://macromates.com/manual/en/language\\_grammars](https://macromates.com/manual/en/language_grammars)
  - Semantic Highlighting: <https://code.visualstudio.com/api/language-extensions/semantic-highlight-guide>
- Language Server Protocol
  - In VSCode: <https://code.visualstudio.com/api/language-extensions/language-server-extension-guide>
  - Spezifikation: <https://microsoft.github.io/language-server-protocol/specifications/lsp/3.17/specification/>
- VSCode Extension Veröffentlichung:
  - Bundling: <https://code.visualstudio.com/api/working-with-extensions/bundling-extension>
  - Veröffentlichung: <https://code.visualstudio.com/api/working-with-extensions/publishing-extension>