Toward a Modular Approach for Type Systems and LSP generation

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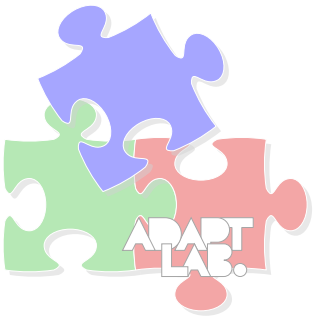

Domain Specific Languages (DSLs)
Introduction

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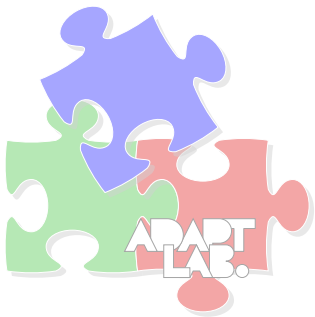
A DSL is a programming language that mimics the terms, idioms and expressions used among the experts in the target domain

- problem-tailored solutions
  - i.e., solutions more concise and clear
- domain-oriented solutions
  - ideally, a domain expert, with no experience in programming, can read, understand and validate such code



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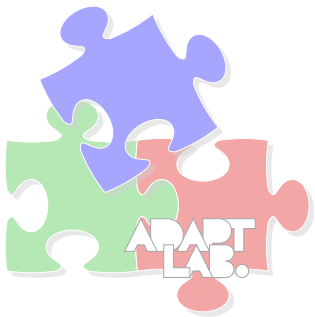
The final aim is to increase productivity and software quality while reducing development costs and time-to-market

Especially in pervasive systems, such as IoT applications



Problem
Test

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Management of variability in language product lines is an open problem in software engineering research.

Language variants can be used to customize a base language.

- Switching language syntax and/or semantics.
  - Localization.
  - Sequential vs parallel execution.
  - Local vs Client-Server.
- Support for additional data types.
- Enforcing input sanitization.
- Additional constructs from other languages.