# Analysing of different antlr patterns in java based repositories

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# Overview

# Research Question

RQ1. How popular are listener and visitor patterns in java antlr repositories?

RQ2. How frequent are enterX and exitX methods used in listener patterns?

# Assumption

- Only considering classes which are not automatically generated by antlr (not *BaseListerner.java or *BaseVisitor.java)

# Workflow

- Download all Repositories
- Check all methods in java classes
- Store all valid methods in data table
- Visualize and analysis of the data

# Implementation

```
methodDeclaration
    : OVERRIDEN? typeTypeOrVoid IDENTIFIER formalParameters ('[' ']')*
      (THROWS qualifiedNameList)?
      methodBody
    ;
```

# Results

RQ1. How popular are listener and visitor patterns in java antlr repositories?

RQ2. How frequent are enterX and exitX methods used in listener patterns?

# Threads to validity

- Methods similiar to the target methods can be count
- Method implementation in the files provided by antlr are not count

# Further tasks

- Run again to count methods with enter and exit
- Check the datatable to find logic mistake and eliminate "similiar" methods
- Increase Performance

# Questions?