

# How to add a new validator to *linteddata*

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## 1 General architecture

- image of the class diagram
- description of the three main groups
  - check → extend
  - report → no changes
  - execution → only add the new check
- describe different severity levels

## 2 Check types

- describe the different types of test
- SPARQL checks might be implemented more efficient as a different type, but should be implemented as them → can be used in other frameworks
- file level
  - errors that get lost when the file is parsed
  - manual processing of the file
- multi graph level
  - file parsed as dataset
  - information extracted from all models
- graph level
  - executed on default model and all named models
  - check always performs on only one model at the same time → no information about other models at this point

- SPARQL level
  - executed on a single model
  - query = string → attribute
  - **execute** → only processing of the query result into failures

### 3 Implementation of a new validator

1. choose a corresponding level
2. implementation of the constructor
  - description of the attributes
  - choose severity
3. implementation of the **execute**
  - how to customise **failureDescription**
  -
4. test check
  - JUnit Test
  - test the ‘lowest’ **execute** function
5. add test to the list of all checks
  - add check in `Runner.createAllChecks()`

### 4 Example

- documentation of creating a check