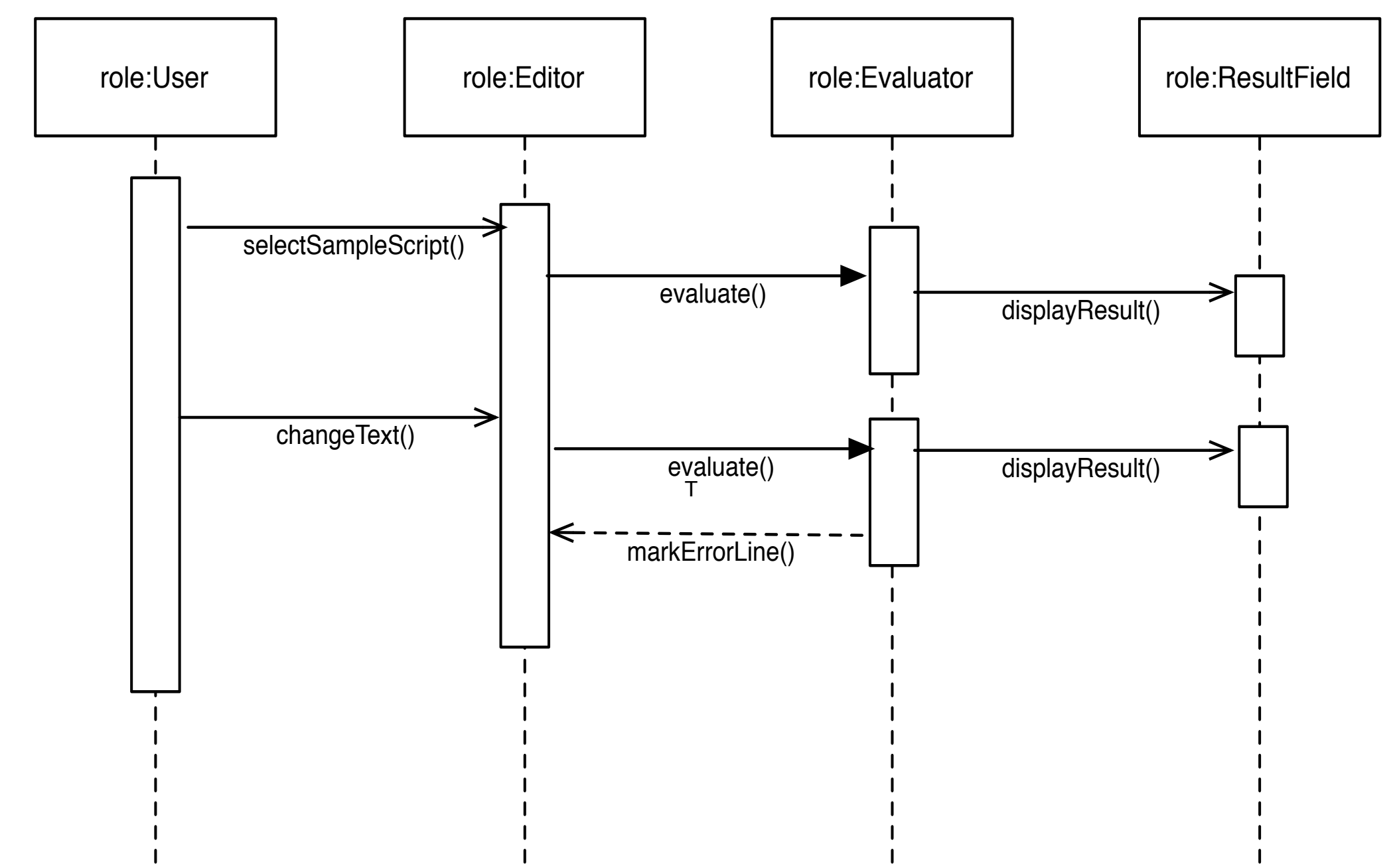


Requirements

- embeddable texteditor
- support different syntax specifications
- supply of sample Scripts
- evaluation of submitted code
- output of executed code
- tagging of faulty line in the script

Typical usecase



This sequence diagram shows a typical use case for this editor, where a user selects a sample script, modifies and evaluates the code.

implemented highlighting features

Tcl - Commands	✓
String areas	✓
Comments	✓
line breaks	✓
special characters	✓
highlighting of special commands	✓
highlighting of within string areas	✗

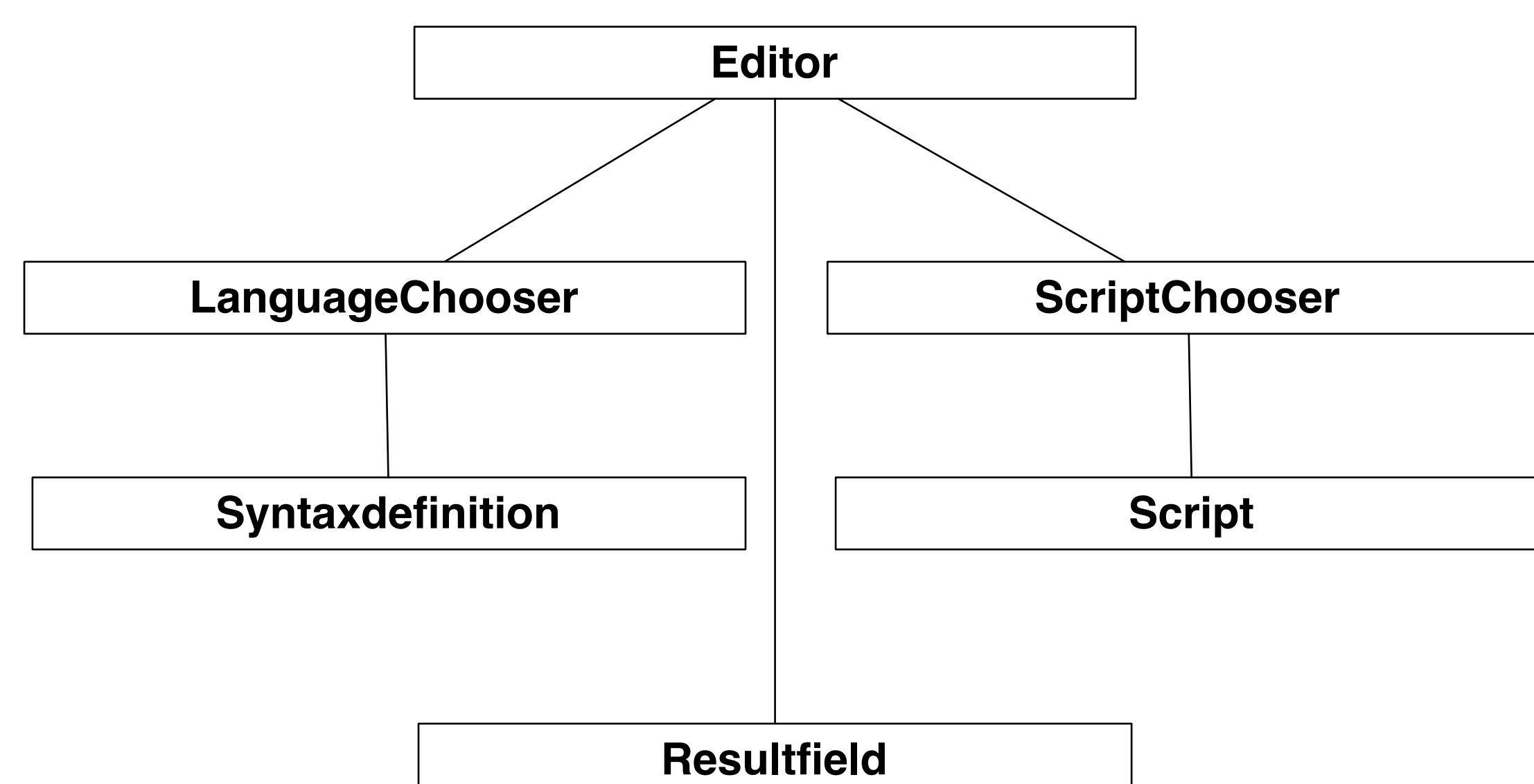
Benefits

- editor and evaluation can be used on mobile devices
- no setup required for students for subjects
- easy to upgrade in production environments

Further work

- collaboration on projects
- monitoring and evaluation of actual usage of language features
- easy sharing of code snippets

Architecture of the editor



Based on the functionality of the Editor Ace, the additional functionality like the sample scripts and the code evaluation were implemented. The syntax definitions for Tcl, XoTcl and NX extend the default text syntax highlighting.

Evaluation of the Code

- execution in a child interpreter in safe mode
- special handling of prints to the command line in order to return them to the browser
- identification and transmission of faulty lines in the script

Implementation

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