The vision of LiaScript Developing MOOCs like Open Source Projects

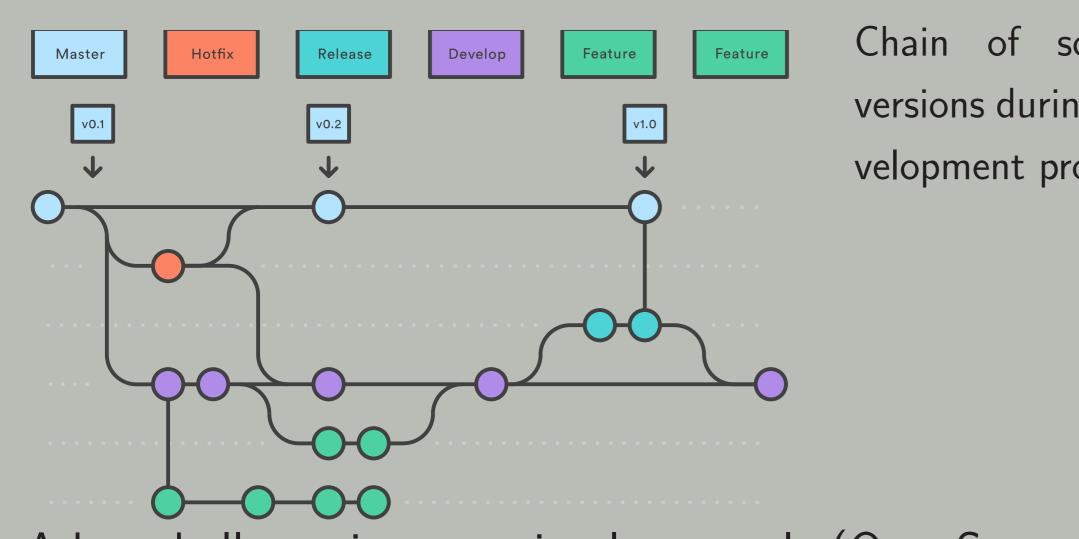
Andre Dietrich, Georg Jäger, Sebastian Zug







Version management for software projects



Chain of software versions during a development process

A key challenge in managing large-scale (OpenSource) software projects is related to the version management. Multiple developers integrate new lines of code, change or delete others in parallel. Consequently, we have to record these different versions independently and to merge the individual adaptations to a common stage. The current quasi-standard for this task Git, a distributed revision control system in connection with other management and project tools.

Vision of LiaScript

LiaScript intends to transfer the idea of a distributed software development onto digital learning materials. Similar to coding projects one lecturer initiates the content of new MMOC. Based on the version management system everyone is now invited to improve, extend, translate or to adapt the course. A precondition for this integrative approach is a tool-less, easy to understand description format covering a large bandwidth of digital learning formats. For LiaScript we designed a textual description language that extends the Markdown notation and offers the opportunity to include:

- 1. Text-To-Speech combined with visual effects and transitions
- 2. media types including (images, movies, sound, ASCII-art),
- 3. executable and modifiable code examples (with versioning),
- 4. different formats of quizzes/surveys with hints and solutions,
- 5. free integration of JavaScript-functionality and HTML-elements



LiaSript is prepared for internationalization and supports different languages for one MOCCs. Based on the textual representation the LiaScript-Interpreter generates online an web-representation.

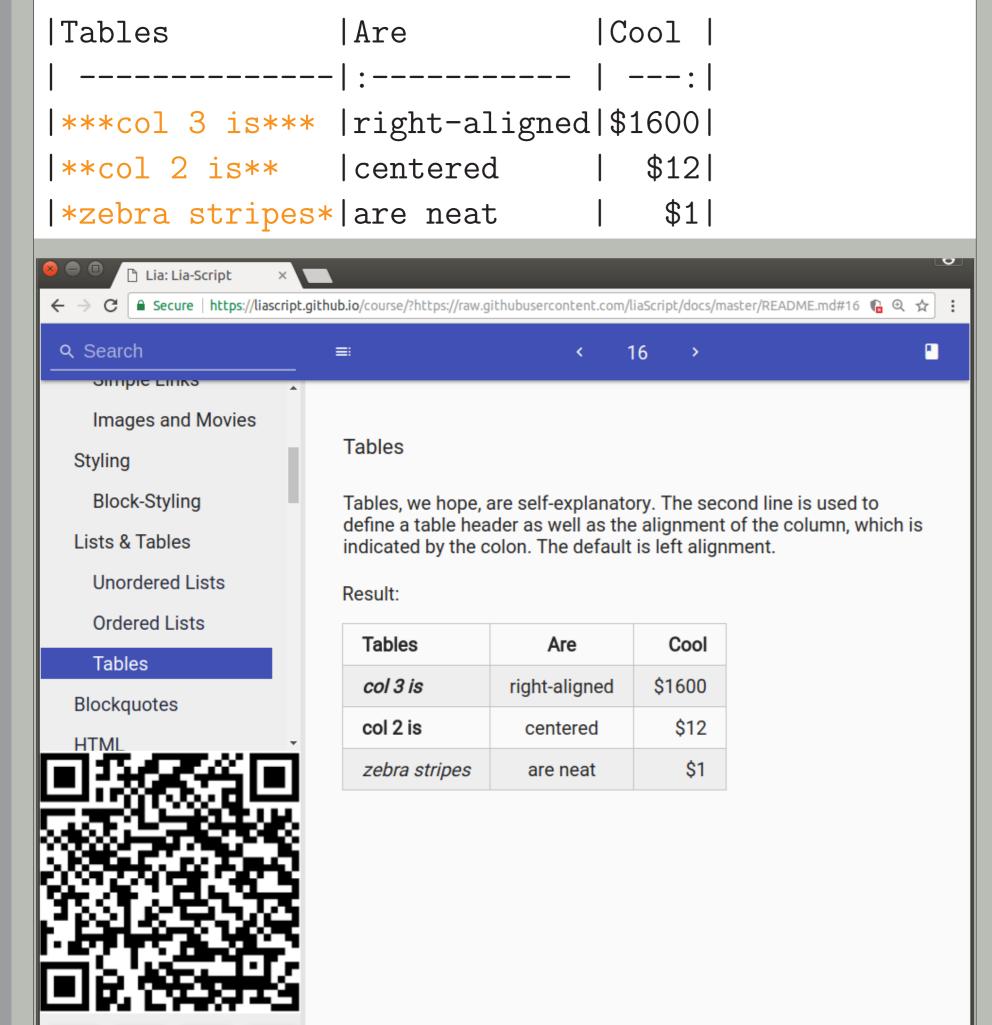
Images and Movies

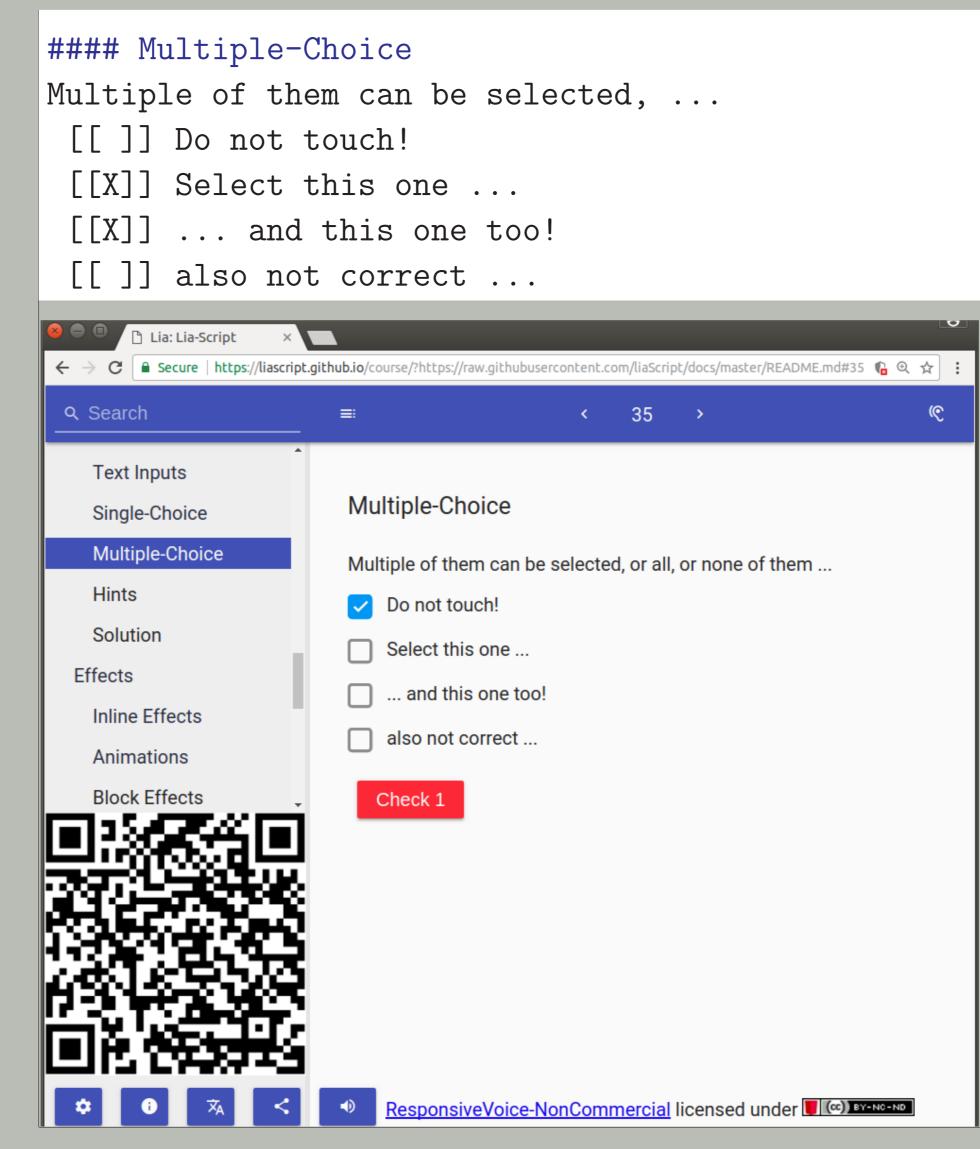
* Image-notation:

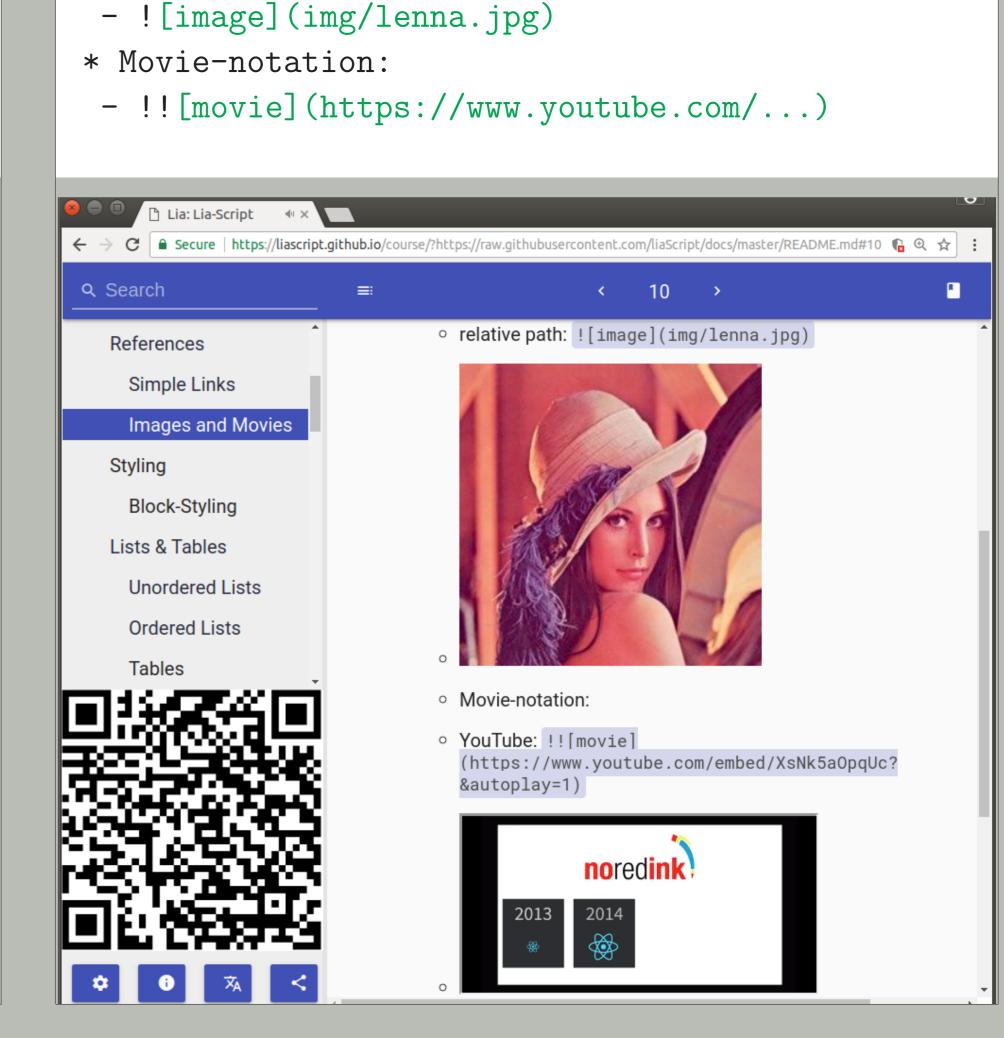
C++

Examples

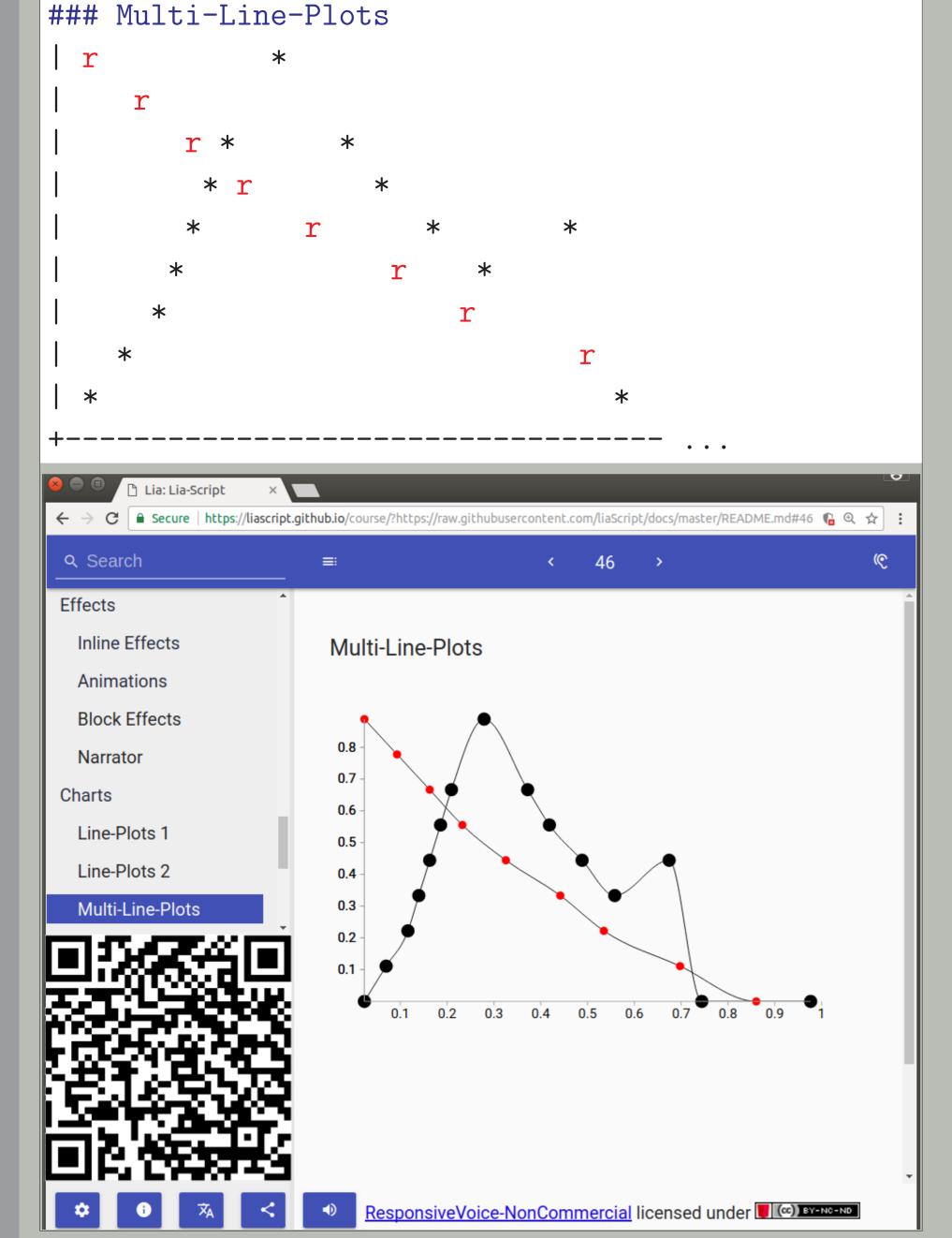
Tables







Extended Examples





HTML & JavaScript

new Chartist.Line('#chart', {

'''javascript

