Fachbereich Mathematik und Informatik
Prof. Dr. K. Ostermann
Paolo G. Giarrusso, pgiarrusso@informatik

Philipps Universität Marburg

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Web Technologies
Assignment 11

Please hand in your homework by email to `pgiarrusso@informatik`. The deadline for this assignment is January 30.

If at all possible, please bring your laptop to the following exercises.

General advice

Use Rails version 2.3.14 (the one I'll use for correction), and the default database (SQLite) for your applications; you can download it here:
`http://bitnami.org/stack/rubystack` or if you have Ruby installed, follow instructions at
`http://rubygems.org/gems/rails/versions/2.3.14`.
Official guides can be found here: `http://guides.rubyonrails.org/v2.3.11/`.
In particular, an introduction is available here: `http://guides.rubyonrails.org/v2.3.11/getting_started.html`.

G11.1   Ruby on Rails

1. Write a Rails application that prints the first 10000 natural numbers in an HTML document.

2. Write two Rails views where the first one has an input form. Submitting this form should lead to the second view being displayed, which in turn prints the natural numbers up to the submitted number.

3. Use the XML builder to build an HTML document that displays the first 10000 natural numbers.

H11.1   Library Management with Rails

Use Ruby on Rails to implement your library shop.

1. Parse your library data into Rails (see XML::Parser). Implement a view of that data which reimplements the transformation usually done by XSLT (i.e., use no XSLT this time).

2. Add input forms to your view which allow libraries to the added. Implement a controller which is called on submit of this form, and extends the library data by the new entry.

3. Discuss whether your application is safe against cross-site scripting attacks. In addition, show at least one location in your code where:

- either there is a vulnerability (and show how to fix that location);
- or where you prevented a vulnerability by appropriate countermeasures (and explain which ones).

Hand-in a complete archive of the source code, such that I can run it simply with "ruby script/server"; document the URL to access the home page of your application.