Course Project Assignment
A (Social) Media Integrator

Your project assignment
Your task is to build an application that provides an interface to multiple (social) media sources with XQuery.

What media sources can I use?

- RSS feeds (Der Spiegel, BBC, Blogs, ...)
- Twitter (https://dev.twitter.com/docs/api)
- Google/Google+ (https://developers.google.com/+/api/)
- Facebook (developers.facebook.com/docs/reference/api/)
- eBay (https://www.x.com/developers/ebay/products/shopping-api)
- Flickr (http://www.flickr.com/services/api/)
- Any other Web Service/REST API
- HTML Scraping from any Web site

Which features should the media integrator provide?

- Retrieve data from at least two of the above sources
- Render "documents"/"posts"/"updates" into a suitable human-readable format, e.g. XHTML
- Sort/Group "documents"/"posts"/"updates" according to date, author, …
- Search for specific values of attributes/elements (e.g. author)
- Full text search over the complete contents
- Combine multiple feeds
- Feed Statistics
    • Most active authors
    • Most popular keywords
- Re-publish individual items or a combined feed (to file or to a service, compliant to one of the formats above)
- Mark Read "news", only display unread
- Subscription Management
- Offline Feed/Data Cache (optional)

What XQuery platform and engine should I use?

The application should run on one of the following platforms:
- XQuery Server Pages (to develop **server-side** Web applications, instead of Java EE or PHP; it uses the MXQuery engine). A Web application archive will be provided on the lecture Web site.
- Sausalito (**server-side** as well, a more sophisticated XQuery application server; it uses the Zorba engine). http://sausalito.28msec.com
- XQuery in the Browser (Javascript implementation of XQuery on the **client-side**). http://www.xqib.org

Are there IDEs to help me?
The following IDEs are available to assist you while developing your XQuery application:
- XQuery Development Tools (http://www.xqdt.org): a plugin for Eclipse for using XQuery. Supports MXQuery and Zorba.
- oXygen and Saxon to test your queries

What are the next steps?
Before **December 21st, 2011**, you are kindly asked to form **groups of 2 to 3 students**. Please send an e-mail to Prof. Fischer before this deadline which provides your names.
The project should be completed by **February 6th, 2012**. You should arrange an appointment with Prof. Fischer around this date to present your work.

We will maintain an FAQ lists and some example to help on the course web site. You can also contact us directly by e-mail.

Where can I find documentation on the features I need:
- XQuery Functions and Operators:
  http://www.w3.org/TR/xpath-functions/ (all XQuery engines)
  http://www.w3.org/TR/xpath-functions-30/ (most XQuery engines)
- EXPath module for REST/HTTP calls (almost all XQuery engines)
  http://expath.org/modules/http-client/
- JSON module to read JSON into XDM (custom to Zorba/MXQuery)
  http://www.zorba-xquery.com/site2/doc/latest/zorba/xqdoc/xhtml/www.zorba-xquery.com_modules_converters_json.html