Project Assignment

Assignment You are requested to write the web service backend to support a new task manager (in the spirit of e.g., Wunderlist http://www.6wunderkinder.com/wunderlist/, Remember the Milk http://www.rememberthemilk.com, and Things http://culturedcode.com/things/).

Your web services should support at least the following scenarios.

- A new user signs up for the service, and creates a new todo list together with a few tasks in that list.

- A user sets a deadline for a task and gives it two new tags (e.g. 'work', 'project infoh511', 'to_read', ...).

- A user shares tasks with co-workers, based on either the folder the task is in, or the tags by which a task is tagged.

- A user links the service with Google Calendar, so that all tasks with deadlines appear in his Google agenda.

- A user fetches the list of task that need to be completed today, tomorrow, in 5 days, ...

- A developper browses the list of tasks/todo lists/folders/tags/... in various formats (e.g. xml, json, rdf, ...).

Only authenticated users can have access to the service and users can only browse their own data or data shared with them. In particular, no user will be able to browse the list of all users.

In addition, you should provide some additional functionality (integration with other services, user interface, ...). The scenarios above (plus the report, see below) are quoted on 8/10 points in total. Additional functionality is quoted on the remaining 2/10 points.

The goal in the project is to design and develop the corresponding web services, (including a choice of suitable web service technologies for development). You are free to use 3rd party existing libraries during development.

In addition to the code produced, you must submit a report of 12 pages maximum that describes the architecture of you solution, the technologies selected, the motivational reasoning behind your choice of technologies, a technical description of the functionalities provided (especially of the additional features). A separate demonstration plan should be included that details the operations that you will follow during your evaluation to show that your web service is indeed functioning.

Modalities This assignment contributes 10/20 to the overall grade and has to be made in groups of two persons. You are asked to send, per group, the names of the group members to Mr. François Picalausa (fpicalau@ulb.ac.be) by March 16 at the latest. If you cannot find a partner, please indicate so by sending an email to Mr. François Picalausa, who will hook you up with a partner.

You will have to create a mercurial repository[1] in the `INFO-H-511` repository group at `http://informa2.ulb.ac.be` to submit your code, demonstration plan, and report. The username and password to login to this system correspond to your ULB/VUB NetID. The repository will be named `project-<student1>-<student2>`, where student1 and student2 correspond to your usernames. It is recommended that you create this repository *as soon as possible* to avoid last minute technical difficulties.

Your code, demonstration plan, and report must be pushed to your repository **no later than Friday, June 1, 2012**. The demonstration plan and report must be submitted in pdf or html format. You will be asked to demonstrate and explain your web service during the end-of-year examination.

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[1] `http://mercurial.selenic.com/wiki/Tutorial`