



THE INTERNATIONAL INSTITUTE OF

SUPINFO

INFORMATION TECHNOLOGY

Servlet/JPA

Academic Year – 2010 - 2011

Note ton STA !

Graded Exercise



Context

SUPINFO wants to set up a new platform for evaluating courses and conferences! With it, SUPINFO students will be able to evaluate the interventions of their STAs to help them to improve them.

So your school needs you to develop this web application. Because it needs to be powerful and scalable you naturally chose to use Java Enterprise Edition Technologies. This website will be named **“Note Ton STA”**.

Specifications

The first version of the website will be composed of several functionalities listed bellow:

- Register a Speaker
- Authenticate and logout a Speaker
- List the Interventions by Campus
- Display details about an Intervention
- Evaluate an Intervention
- For Speakers:
 - List its Interventions
 - Create a new Intervention open to evaluation
 - Update an Intervention
 - Remove an Intervention

In that version, everyone can evaluate an Intervention, no need for students to register or authenticate.

You have to use Servlet/JSP implementing JSP Model 2 Architecture and JPA implementing good practices (DAO, Factories, ...).

1. Data Structure

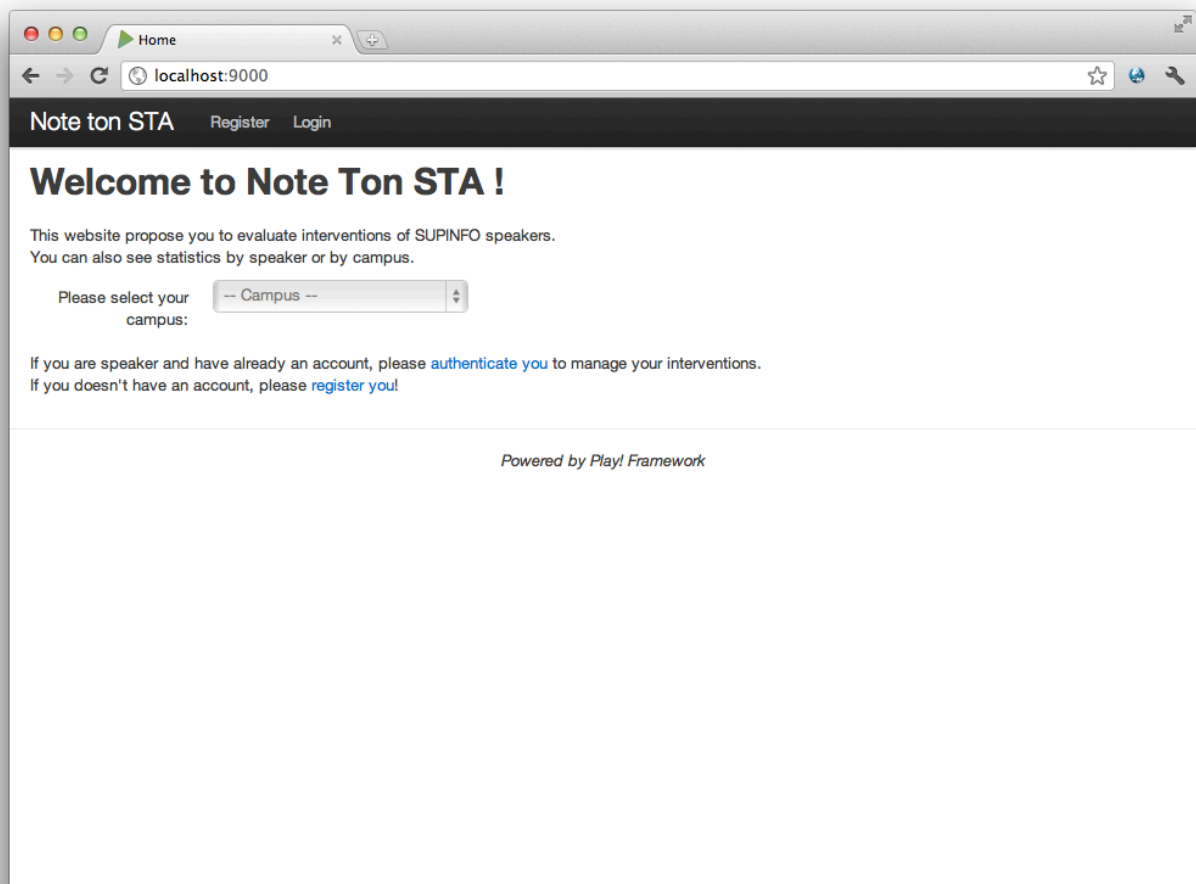
Before start to develop, draw an UML class diagram representing the JPA Entities you will need with their relationships.

This diagram will be useful for you and for the team that will develop the next version of the platform.

The class diagram must be returned in *jpeg, png or pdf* format (otherwise your STA will hate you!).

2. The home page

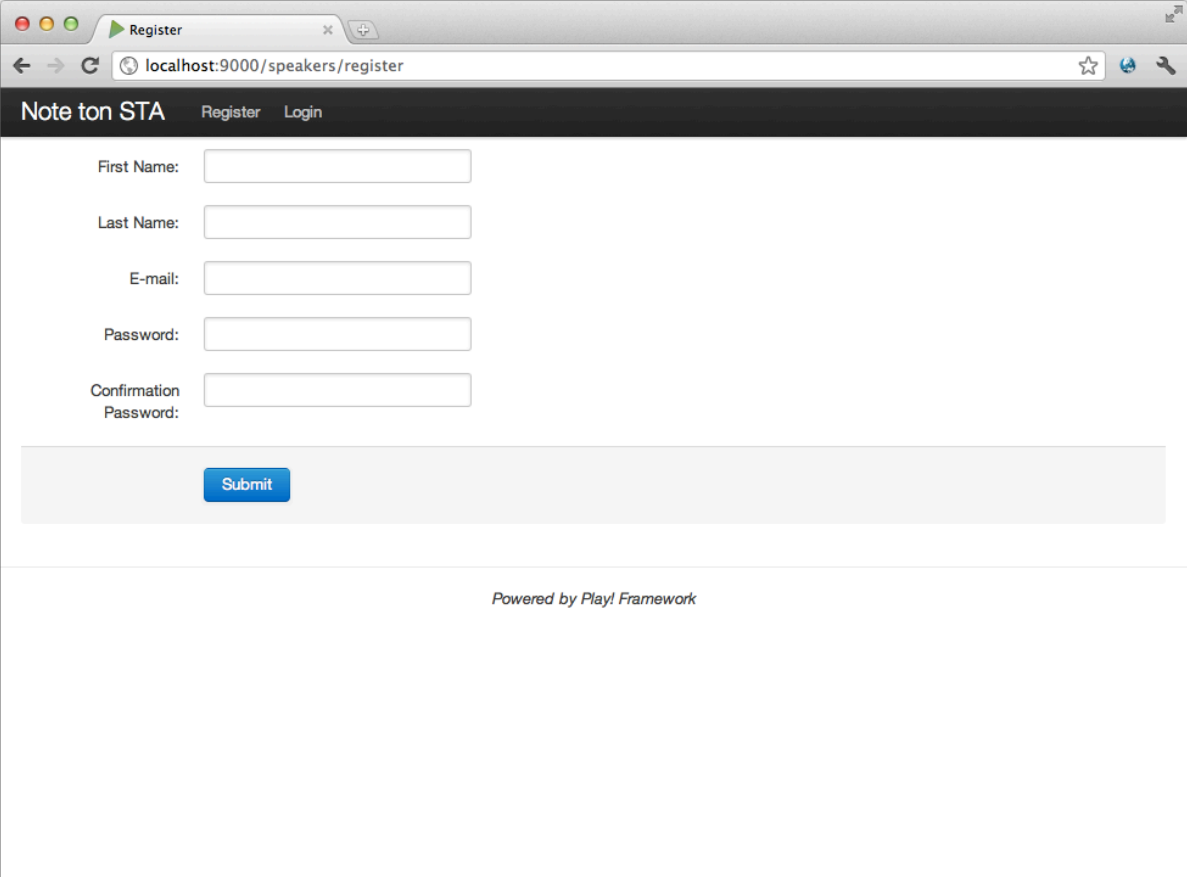
The home page of the platform must provide some explanations of what it does, some hyperlinks to login and register page, and a select box to choose for which campus the user wants to see interventions.



3. Register a Speaker

Everyone can register himself as a Speaker. He just needs to fill a simple form and an account will be created for him.

The form must look like that:



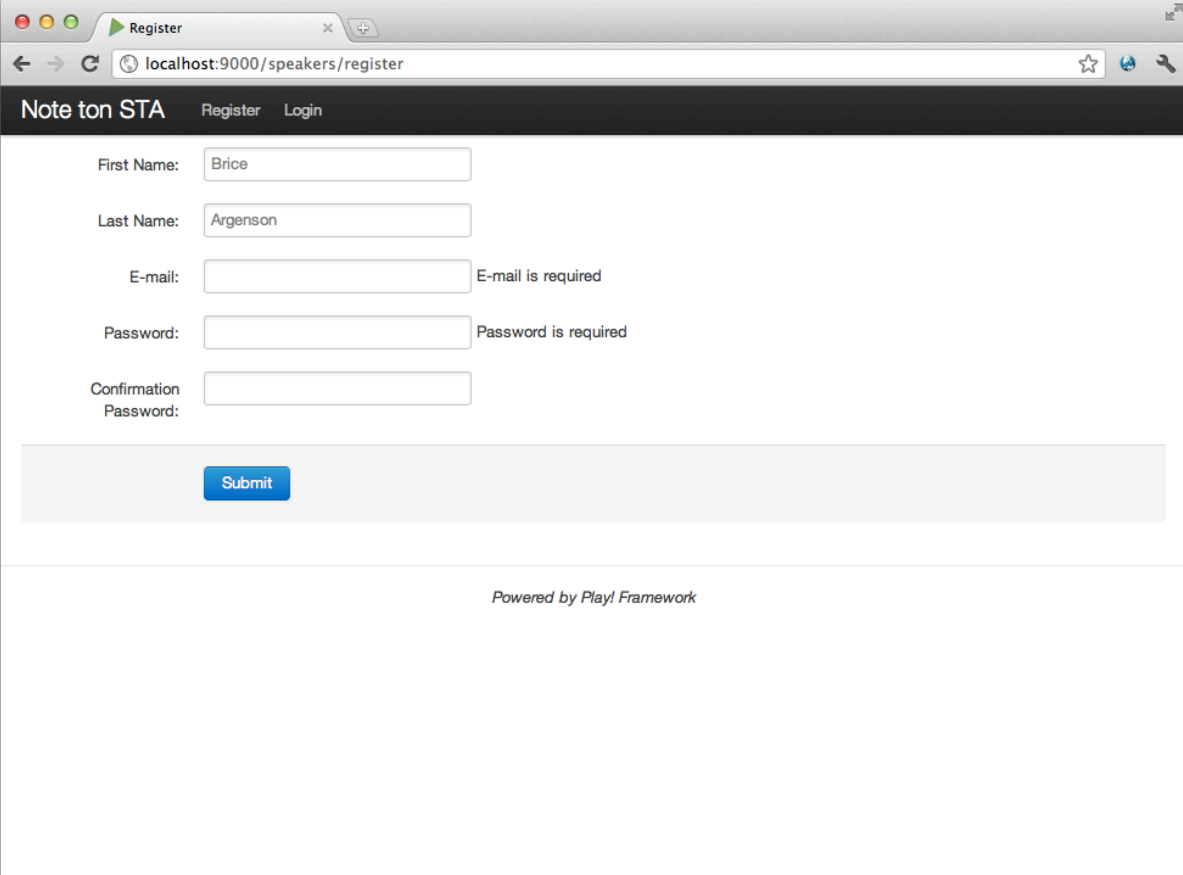
The screenshot shows a web browser window with the address bar displaying 'localhost:9000/speakers/register'. The page title is 'Note ton STA' and there are navigation links for 'Register' and 'Login'. The registration form contains the following fields:

- First Name:
- Last Name:
- E-mail:
- Password:
- Confirmation Password:

A blue 'Submit' button is located below the form fields. At the bottom of the page, it says 'Powered by Play! Framework'.

SUPINFO cares a lot about security, so **don't store password in clear** in database!

For the safety of the data, form fields must be validated! To do that, feel free to use a Framework as Bean Validation or to make the validation with your own code!



The screenshot shows a web browser window with the address bar displaying 'localhost:9000/speakers/register'. The page title is 'Note ton STA' and there are navigation links for 'Register' and 'Login'. The registration form contains the following fields and labels:

- First Name:
- Last Name:
- E-mail: E-mail is required
- Password: Password is required
- Confirmation Password:

A blue 'Submit' button is located below the form fields. At the bottom of the page, it says 'Powered by Play! Framework'.

4. Authenticate and logout a Speaker

Speakers are the only ones who need to authenticate them. Indeed, student can evaluate an intervention without authentication.

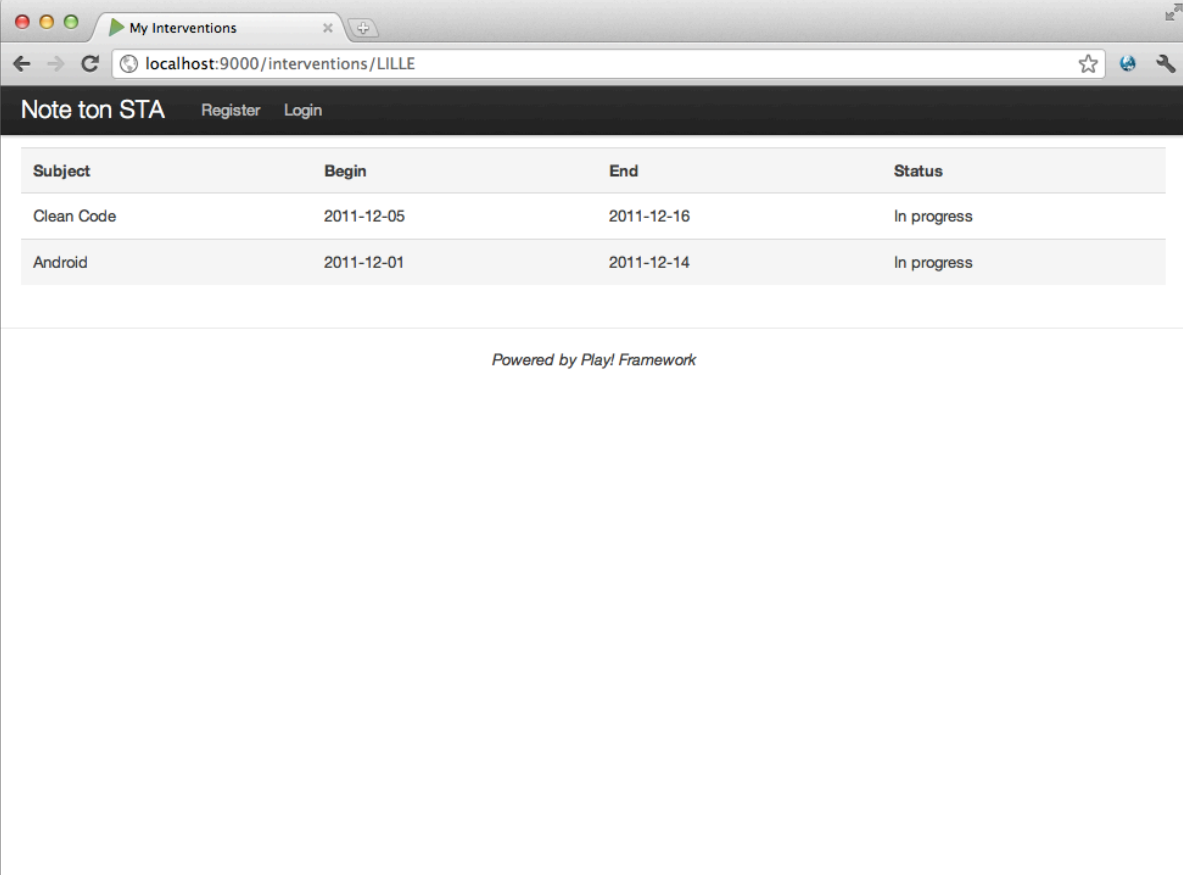
So, you must create a login page. Authentication must be made with the email/password of the speaker.

When a Speaker is authenticated, don't forget to provide him a way to logout!

5. List the Interventions by Campus

Do you remember the home page? We said a select field must be there to select a campus. When the value of the select field change, the user must be redirected to the list of interventions linked to the chose campus.

For each Intervention, you have to display the *subject*, the *begin date*, the *end date* and if the Intervention *has begin*, *is in progress* or *is ended*.



The screenshot shows a web browser window with the title "My Interventions" and the URL "localhost:9000/interventions/LILLE". The page content includes a navigation bar with "Note ton STA", "Register", and "Login". Below this is a table with the following data:

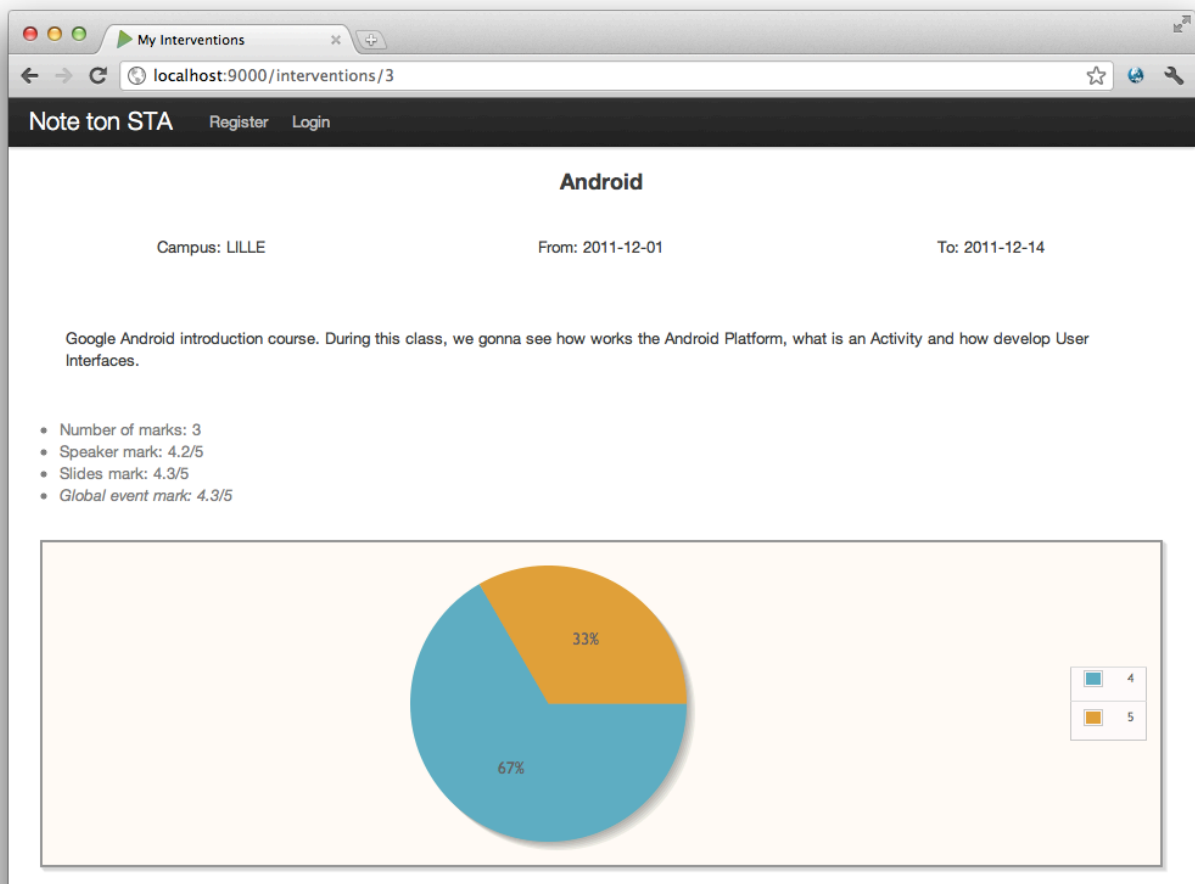
Subject	Begin	End	Status
Clean Code	2011-12-05	2011-12-16	In progress
Android	2011-12-01	2011-12-14	In progress

At the bottom of the page, it says "Powered by Play! Framework".

6. Display details about an Intervention

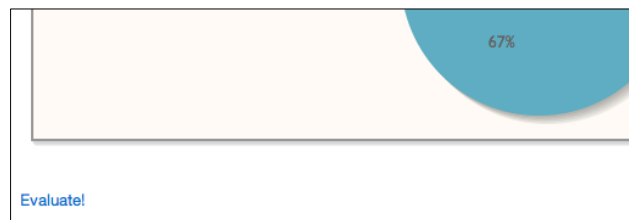
When a user click on an intervention of the previous list, details about it must be displayed.
The Information who has to be displayed is:

- The intervention subject
- The campus
- The period of the intervention
- The description of the presentation
- The number of evaluations made by students
- The average mark of the speaker on that intervention
- The average mark of its slides on that intervention
- The average global mark of the intervention (average of the speaker mark and the slides mark)
- A pie chart of all the intervention marks (all marks combined)



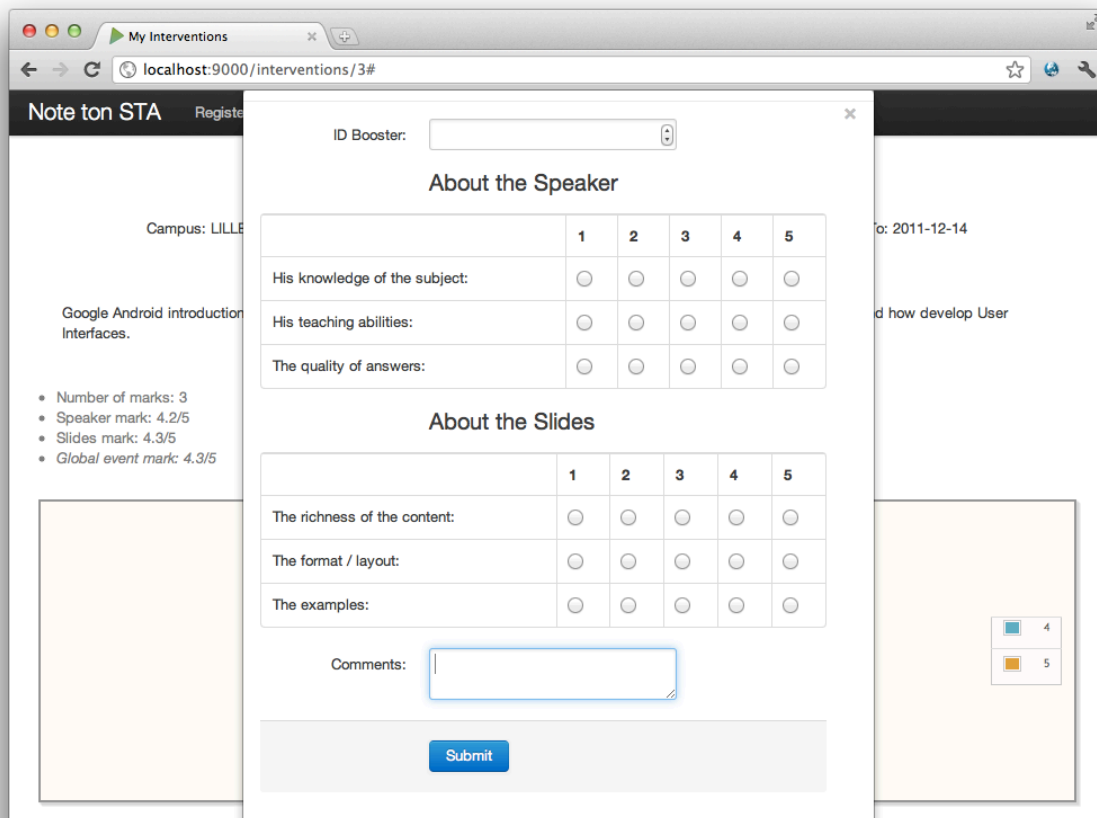
7. Evaluate an Intervention

At the bottom of the Intervention page, non-Speaker users must have a link to evaluate the intervention.



On click, this link must display an evaluation form the user can fill. Evaluation form must be composed of 4 parts:

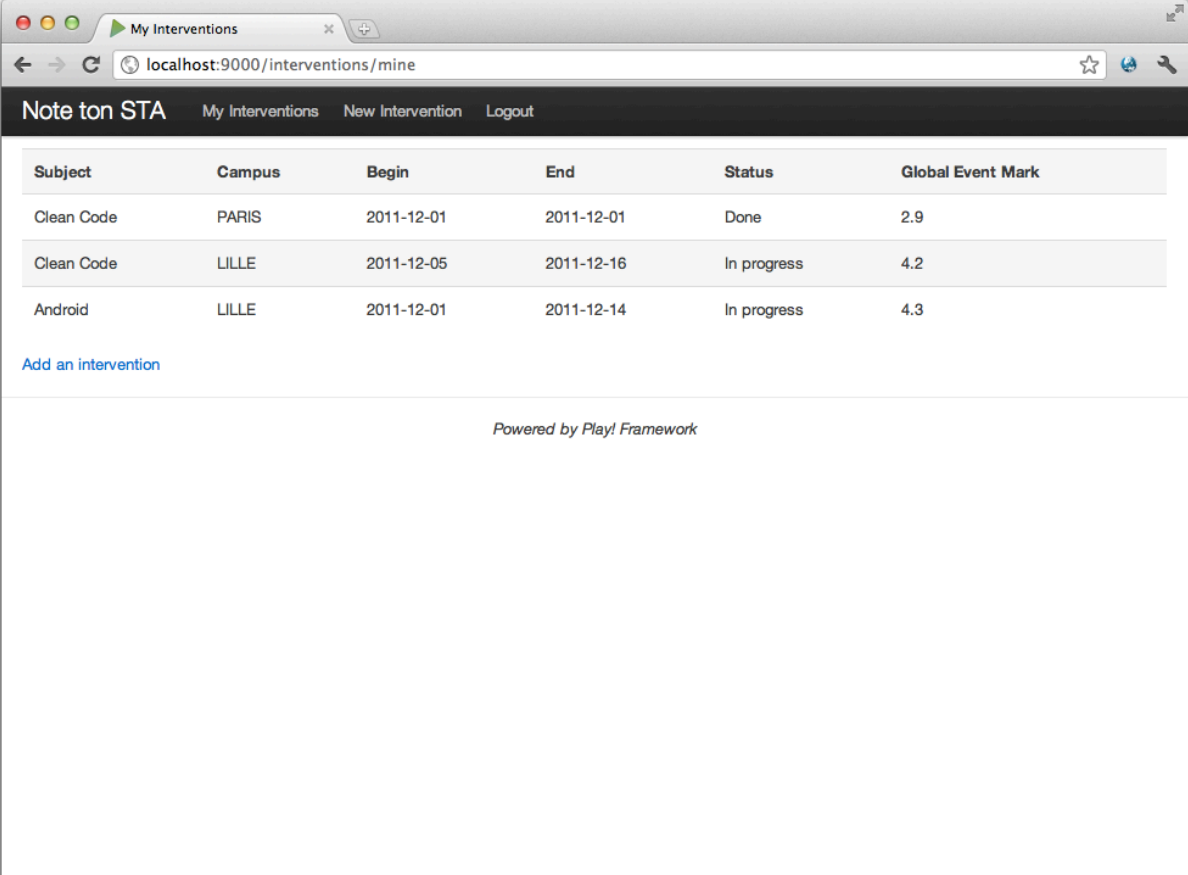
- The ID Booster of the student
- The Speaker Evaluation composed of three marks (see the next screenshot)
- The Slides Evaluation composed of three marks too (again, see the next screenshot)
- A text area where the user is free to let some comments

A screenshot of a web browser showing an evaluation form. The browser address bar shows 'localhost:9000/interventions/3#'. The form is titled 'Note ton STA' and includes a sidebar with 'Campus: LILLE' and 'Google Android introduction Interfaces.' The main form has an 'ID Booster' field, a close button, and two sections: 'About the Speaker' and 'About the Slides'. Each section has a table with 5 columns (1-5) and 3 rows of radio buttons for rating. The 'About the Speaker' rows are 'His knowledge of the subject:', 'His teaching abilities:', and 'The quality of answers:'. The 'About the Slides' rows are 'The richness of the content:', 'The format / layout:', and 'The examples:'. Below these is a 'Comments:' text area and a 'Submit' button. On the right side of the form, there is a small legend with a blue square for '4' and an orange square for '5'.

8. Speaker Area - List its Interventions

Authenticated Speakers must be able to display a list of all their interventions!
For each Intervention, you must display:

- The subject
- The campus
- The begin date
- The end date
- The status (Not started, in progress, done)
- The Global Mark of the intervention (the average of all marks)



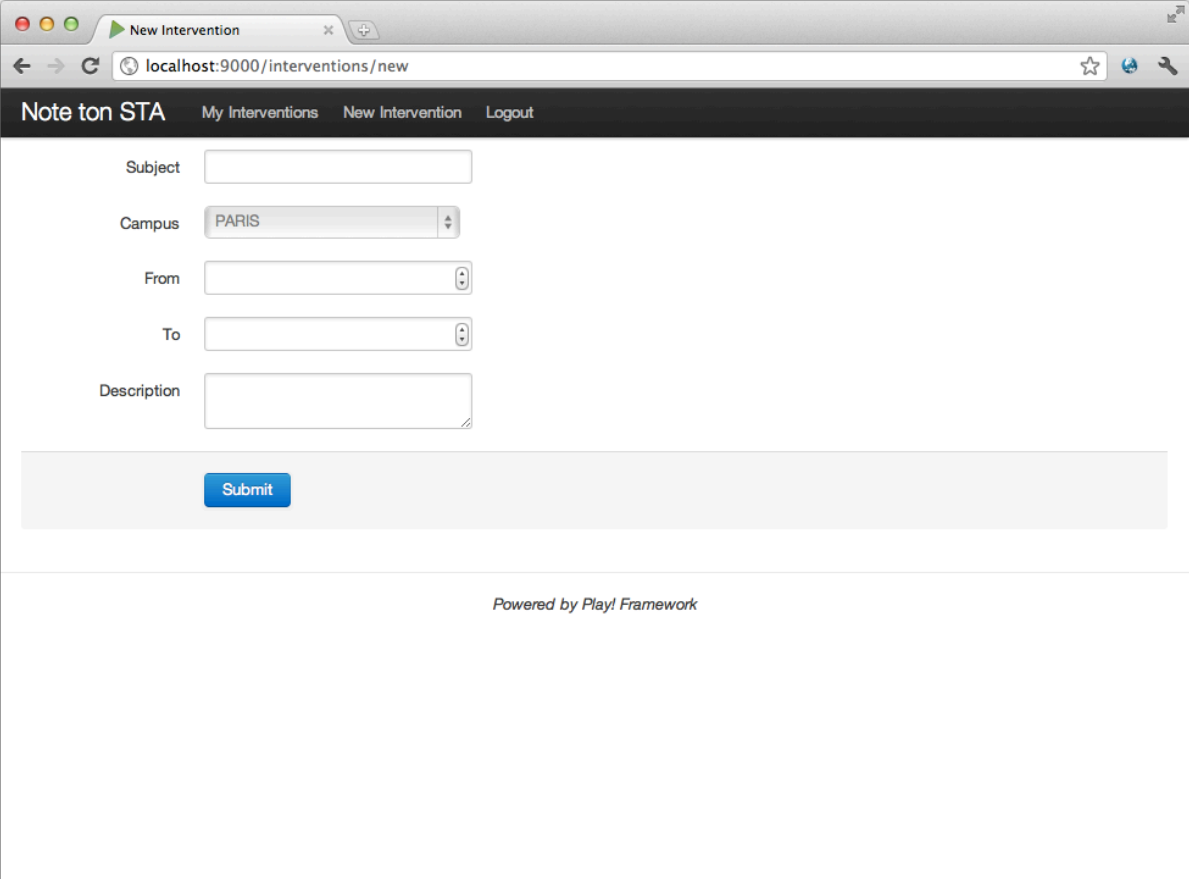
Subject	Campus	Begin	End	Status	Global Event Mark
Clean Code	PARIS	2011-12-01	2011-12-01	Done	2.9
Clean Code	LILLE	2011-12-05	2011-12-16	In progress	4.2
Android	LILLE	2011-12-01	2011-12-14	In progress	4.3

[Add an intervention](#)

Powered by Play! Framework

9. Speaker Area – Create an Intervention

A Speaker must be able to declare an intervention on the platform. The form must look like that:



The screenshot shows a web browser window with the following elements:

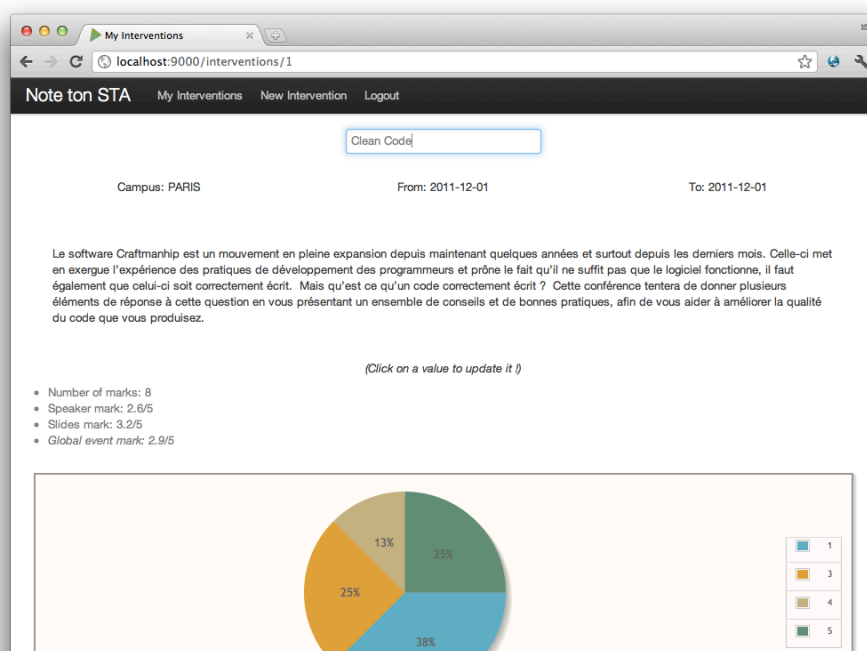
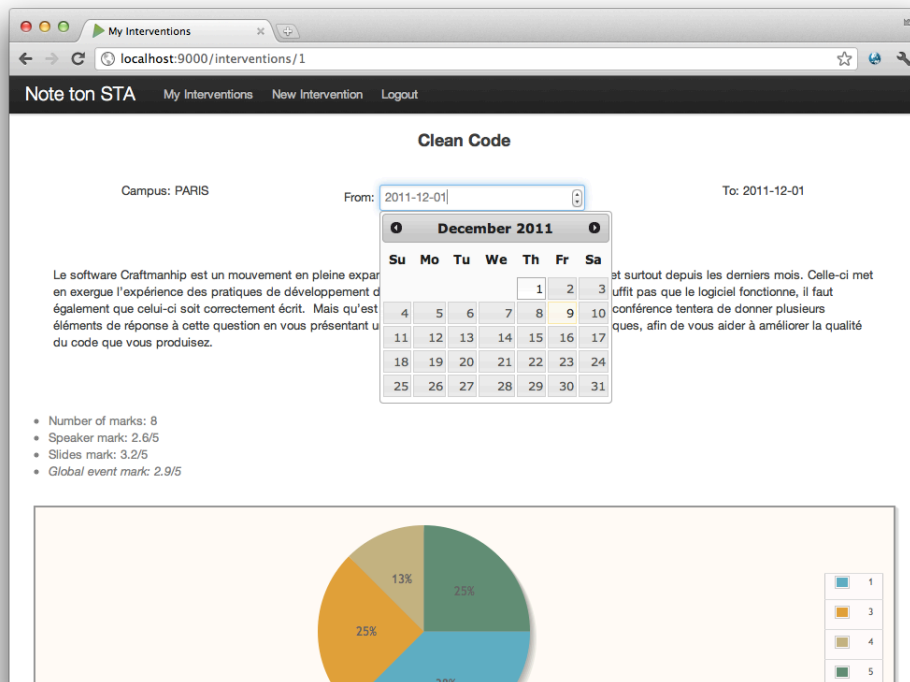
- Browser title: New Intervention
- Address bar: localhost:9000/interventions/new
- Navigation menu: Note ton STA, My Interventions, New Intervention, Logout
- Form fields:
 - Subject:
 - Campus:
 - From:
 - To:
 - Description:
- Submit button:
- Page footer: Powered by Play! Framework

Again, the fields must be validated! (All the fields are required)

10. Speaker Area – Update and remove an Intervention

Speakers can made mistakes or just get sick. So, you must provide them a way to update and remove their Interventions from the platform.

Feel free to provide those functionalities in the way you want.



11. Speaker Area – Evaluation details

The Speaker must be able to see details about student evaluations. But I think you have already enough functionalities to develop so we'll do that in a next version 😊

Notation

Functionalities	Points
UML Class Diagram	4
Register a Speaker with form validation	4
Authenticate and logout a Speaker	2
List the Interventions by Campus	2
Display details about an Intervention	6
Evaluate an Intervention	5
Speaker Area – List its Interventions	2
Speaker Area – Create a new Intervention with form validation	3
Speaker Area – Update and remove an Intervention	4
Ergonomics of the webapp	2
Code Quality	4
Conventions	2
TOTAL	40

Appendix

More about Bean Validation:

- <http://blog.xebia.fr/2010/07/15/bean-validation/>

A toolkit from Twitter designed to kickstart development of webapps:

- <http://twitter.github.com/bootstrap/>

Return

You will return your graded exercise inside a ZIP archive named: **NoteTonSTA_Campus_IdBooster.zip**. For example: NoteTonSTA_Lille_10000.zip

Not respecting this convention will be sanctioned by penalties points.

You will send the archive **to your STA SUPINFO email address only** and **before the 31th December, 24 PM**. After that delay, your graded exercise **will not be corrected and the mark 0 will be assigned to you.**