SUPINFO Academic Dept.

SUPINFO International University

INSTITUTE OF INFORMATION TECHNOLOGY

4JVA - Enterprise Programming Project

Document content

Subject
Delivery

Version 1.0
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Use: Students/Staff
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SOMMAIRE

1 CONTEXT

SUPINFO wants to create its fitness application and needs you to develop it. Because it needs to be powerful and scalable you naturally choose to use Java Enterprise Edition Technologies.

The goal is to create a robust web platform to view foot races and share them on social networks. For this exercise, just share by Facebook.

This project must be done by groups, each containing 3 or 4 students maximum. Working in a bigger group will be sanctioned by penalties points.

2 SPECIFICATIONS

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

- As anonymous:
  - View a short description of this service and statistics in the index page
  - Register as a new user, authenticate himself

- As a registered user:
  - Show history
  - Share a foot race
  - View and edit his profile
  - Use web services to add/remove track
  - Log out

You have to use EJB 3.1 and Servlet/JSP implementing JSP Model 2 Architecture and JPA implementing good practices (DAO, Factories, Criteria and MetaModel API...).

2.1 DATA STRUCTURE

Before starting the project, 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 Teacher will hate you!).

2.2 INDEX PAGE

For anonymous the index page must show a short description of this service and statistics of use (number of users, number of course races). You are free to add others statistics.
A navigation area must be displayed on the top of all pages (login, register).

For authenticated users, the navigation area displays a logout link, a link to his profile and a link see the page of saved foot races.
This page displays the last saved foot race with a Google Map.

2.3 REGISTER AND AUTHENTICATE

When registering, users have to give some details about them, like username first name, last name, email address, a postal code and password.
Of course, you'll have to check user input.
When the user registers him, it must log him in too.

The user can authenticate by a dedicated log in page with username and password.

2.4 FOOT RACES HISTORY

An authenticated user can view old foot races and add new foot race by the web-service.

On the page of his races history, a user can view the detail of a foot race and share it on social network. A foot race is a list of GPS coordinates and speed informations. It's a Track object.
A « Track » is composed by an id, a user, a longitude, a latitude, a speed information (km/h) and a date (format : YYYY-MM-DD HH:MM:SS).
Display the race with Google Map api.
To display a foot race you can group by date. One race by day.
The lastest foot race at top of the page.

2.5 VIEW AND EDIT HIS PROFILE

Users can view a profile page to change their details (except username).

2.6 WEB SERVICE

This application provides a web service (REST) to list older tracks order by date.
This web service can add or delete a track of a user account. A new track is an array of GPS tracks.

To use this api the user must send his username and password for each request.
All request are send by JSON object.
This Api returns JSON only.

1.1 LOG OUT

This functionality must log the user out.

3 INSTRUCTIONS

- Plagiarism is forbidden.
- Make accessible his code on a public sharing platform (as GitHub) before the end of the evaluation is forbidden.

Don't abiding by these rules will result in suspension of your assessment and will be considered cheating.

4 NOTATION

Functionalities	Points
Data Structure	2
Index (map, statistics, service description, navigation area)	3
Security (register, auth, log in/out, filters)	3
Share by Facebook	2
Display a course race on a map	3
Manage course race (add/remove)	3
Page history of tracks	3
View and edit profile	2
Course races are displayed by day on history page	4
Web service list foot races	2.5
Web service add a foot race	2.5
If EJB is not use	-10
Design	2
Code Quality & Conventions	3
TOTAL	**35/35**

5 RETURN

Return your graded exercise as a ZIP archive named as follows:

4JVA_SupFitness_Campus_IdBooster.zip.

For example: 4JVA_SupFitness_Troyes_10000.zip
Not following this convention will result in point loss.

You will send the archive **to your Teacher SUPINFO email address and a copy to 4JVA@supinfo.com** to secure your project. Send it **before the 4th March 2016 before 23:59**. After that delay, your graded exercise **will not be corrected and the mark 0 will be assigned to you**.