

Project: Web Application – Milestone 1

*This project must be prepared in teams of **1 to 2** students and submitted on Campus. Check the due date in the submission area.*

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1 Work to Do

You have to develop a web application using Java EE. The features of the application are deliberately simplistic: the project focuses on the architecture of the application rather than its features.

The development of the application includes two milestones. This document only addresses the first one. Additional features and architecture guidelines will be defined in the second milestone.

If you have any question regarding the lab, please post it on the Questions & Answers forum. I will not reply to emails. Thank you.

1.1 Application Features

In the first milestone, the application does not do anything useful. It only allows users to sign-up, sign-in and sign-out.

User accounts are persisted in a relational database. A user account includes the following information: email address (identifier), password, the date the user signed-up, the date he/she last signed-in, the date he/she last accessed the application¹.

¹ see below

The application presents the user with the following three pages, in order of appearance.

1.1.1 Sign-In & Sign-Up Page

This page displays a form with three fields: email, password, confirm password, and two buttons: Sign-In and Sign-Up. The processing of the page follows the usual sign-up and sign-in rules.

1.1.2 User Account Page

The application displays this page after the user successfully signed-up or signed-in. The page displays the user account information, except the password. It also displays a form with two buttons: Update, Sign-Out, and a check box: Delete Account.

If the user hits Update, the date of the last access to the application is updated and persisted in the database. If the user hits Sing-Out, the Sign-Out page is displayed. In addition, the user account is deleted if the Delete Account box was checked.

1.1.3 Sign-Out Page

This page display the email of the user followed by the phrase “signed-out”.

1.2 Application Architecture

The architecture of the application conforms to the Model View Controller pattern, as follows.

The Java code is split across three packages: `model`, `view`, and `controller`. The `controller` package contains only one class: the `Controller` servlet. Based on user inputs, the servlet calls the model and select the appropriate view to display. The `view` package contains one or more classes in charge of generating the HTML code to return to the client. The `model` package contains all the model classes, including entity and entity manager classes.

2 Test Environment

The application will be tested using the GlassFish application server version 5.0, and Java 8.

More information to come.

3 Marking Scheme

The tentative marking scheme is as follows.

Item	Marks
Features	9
Architecture	9
Code Quality	2
Total	20

4 Submission

4.1 Deliverable

The deliverable consists of the web archive of your application. The archive contains all the files to deploy to the application server **as well as your source code**.

In order to identify the team members, you must rename the web archive as `LASTNAME1.FirstName1.LASTNAME2.FirstName2.war` **without any space character** before submitting it.

4.2 Submitting

Drop your Java file into the submission area, **only once per team**. You may submit the file again as often as you wish until the deadline, provided you **always do so under the same Campus user**.