



The files to solve this test are in the following link:

https://github.com/nicolasserrano/CS/tree/master/webapps/SE2020_05_18_sol

And the file northbrick.mdb from:

<https://github.com/nicolasserrano/CS/blob/master/webapps/northbrick3/northbrick.mdb> You must save your solution in a folder called **SE2021_05_28**.

EXERCISE 1 (4 POINTS)

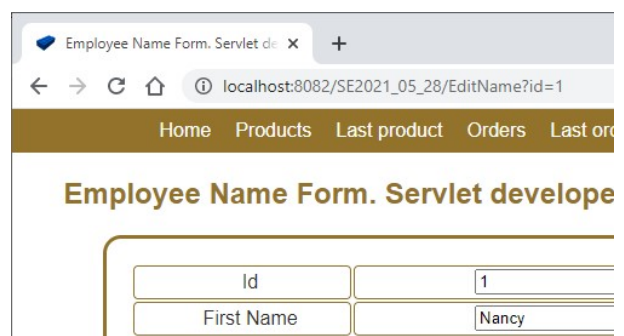
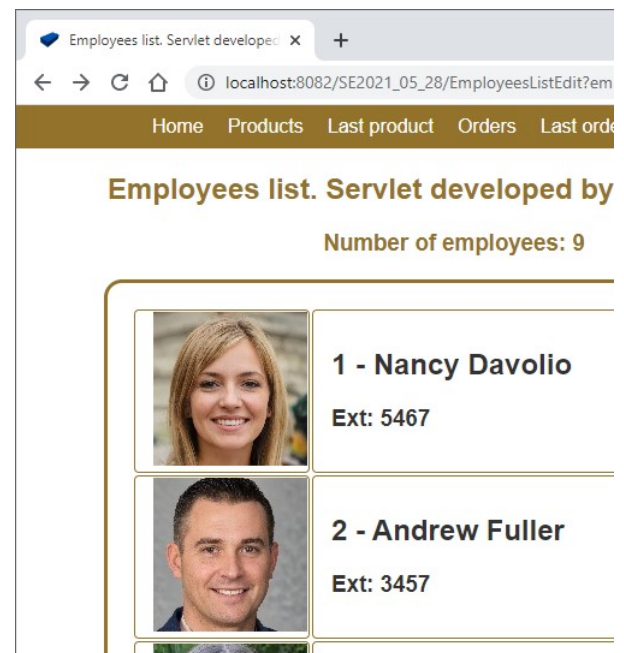
The Servlet named **EmployeesListEdit** lists all the employees returned by the function `getEmployeesList()` in the class **EmployeesDataBase.java**.

EmployeesDataBase.java gets the information from the northbrick database.

Modify this servlet to include a new column with the link "Edit Employee". The link sends the argument `id` with the value of the `id` of the employee to the servlet **EditName**. For example, the link of Nancy Davolio will be `EditName?id=1`.

Write the servlet **EditName.java** that reads the `id` and presents the current employee `id`, first name, last name, and extension. The form will allow to modify this values except the `id`, and sent them to the servlet **ModifyName.java** that is already developed.

Both servlets (**EmployeesListEdit** and **EditName**) should write the message "Servlet developed by #your name#" [replace "#your name#" with your firstname and lastname]. You do not have to insert your name in the database. **You only have to write your information as plain text.**



Check the sections you have done:

- ☐ The solution is in the folder `SE2021_05_28` (0.5 point)
- ☐ The solution shows your firstname and lastname in the title (0.5 point)
- ☐ The solution shows the link to Edit Name (1 point)
- ☐ The servlet **EditName** shows the fields in edit mode and send the information to **ModifyName** (2 points)

EXERCISE 2 (4 POINTS)

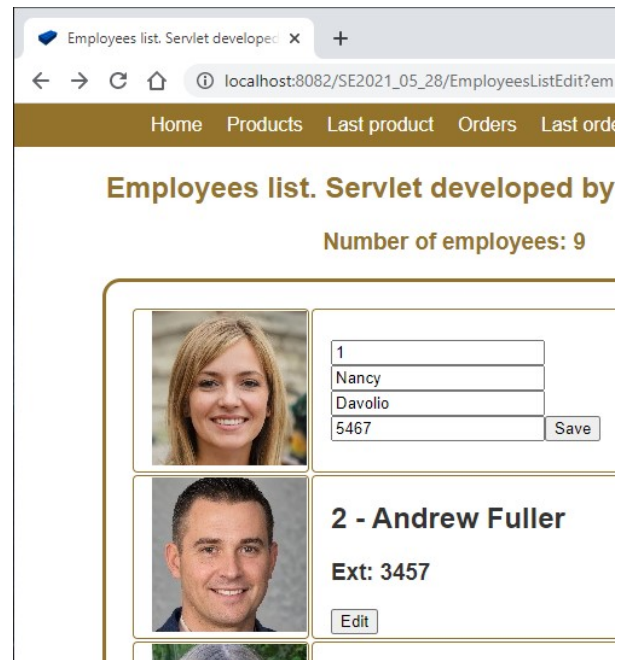
In the servlet **EmployeesListEdit** we are going to develop a feature similar to the previous one but with JavaScript.

Add a button with the name “Edit” to each row in the table, after the extension field, using JavaScript that enables to modify the employee’s data.

When you press the *Edit* button, the data of firstname, lastname and extension will change to edit mode, and the Edit button changes to “Save”. All the elements must be inside a form. When you click on Save button the information will be send to the servlet called **ModifyName** (already created).

(*) If you do not how to do it using JavaScript, you can do it using a new servlet called **EmployeesListEditForm.java** although the score of the exercise will not be so high.

- ☐ Button added to all the rows (1 point)
- ☐ Creation of the form and fields (1 point)
- ☐ Developed using JavaScript (2 points)

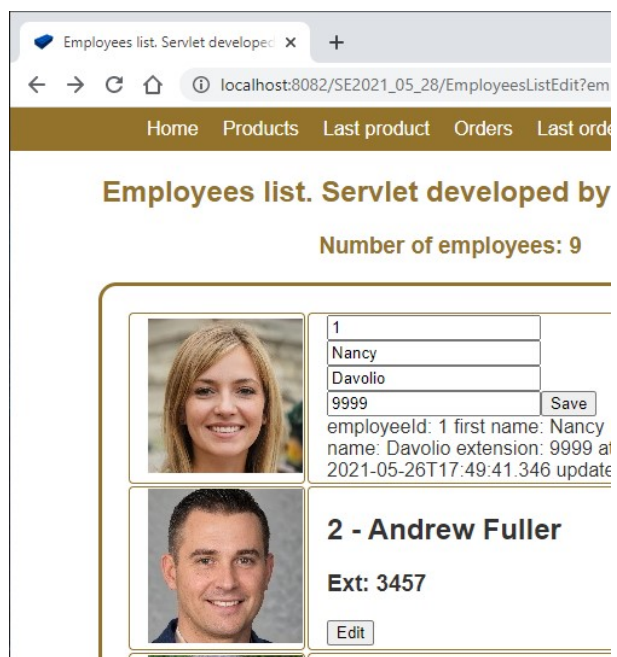


EXERCISE 3 (2 POINTS)

When the “Save” button is clicked, the new employee’s data will be saved in the database using AJAX and the servlet **ModifyName** that you must modify. The page returns the message of the servlet that is shown at the bottom of the cell (see figure).

Note: to avoid the submit of the page it is recommended to remove the previous Form or change it to a Div element.

If you are not able to insert the information in the database using AJAX, you can insert directly with the servlet although the score will not be so high.



Additional point: You can propose improvements to this application using other functions with AJAX (other way of showing the message, a modal form for the input form, verify the extension number is not used by other employee, retour to the previous format of the data employee, ...)

- ☐ The solution modify the employee’s data in the database (1 point)
- ☐ The solution uses AJAX and shows the servlet message (1 point)
- ☐ **Additional point:** Improvements to this application (1 point) Describe: _____