Asignatura / *Gaia:* **Software Engineering** Curso / *Kurtsoa:* **3º**

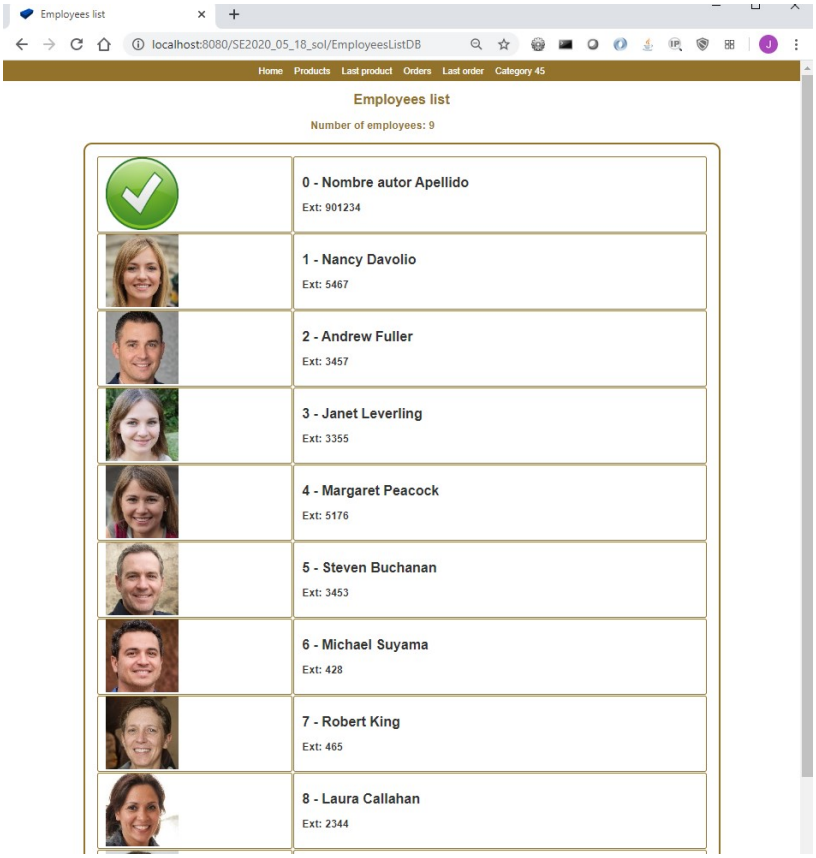
Nombre / *Izena:* Fecha / *Data:* ***18/05*/2020**

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

https://github.com/nicolasserrano/CS/tree/master/webapps/SE2020_02_18_sol

You must save your solution in a folder called **SE2020_05_18**.

EXERCISE 1 (4 POINTS)



Develop a Servlet named **EmployeesListDB** based on the Servlet **EmployeesList** that lists all the employees returned by the function getEmployeesList() in the class ***EmployeesDataBase.java***.

EmployeesDataBase.java gets the information from the northbrick database.

Firstly, the servlet should write the message Employees list and just below the message: "Number of employees: NN", where NN is the number of employees returned by the function *getEmployeesList().*

You must include yourself as the first employee in the list, with *id* equals to 0 and the extension equals to your card id. There's no need to include your image. You do not have to insert your name in the database nor the vector you return in the function. **You only have to write your information in a table row as plain text.**

The list must include the following fields for each employee: employee Id, first name, last name, extension and the image.

The format must be similar to the one shown in the image. Your will get this format if you are using **EmployeesList** file from the folder called SE2020_02_18_sol, removing the import of the js file.

The employees ' images are in the following folder:

https://github.com/nicolasserrano/CS/tree/master/webapps/auxiliary/images

The format of the file name that contains the employee's image is: "emp" followed by the employee id and the jpg extension. For example, the filename of Nacy Davolio is:

http://www.nicolasserrano.com/CS/webapps/auxiliary/images/emp1.jpg

Check the sections you have done:

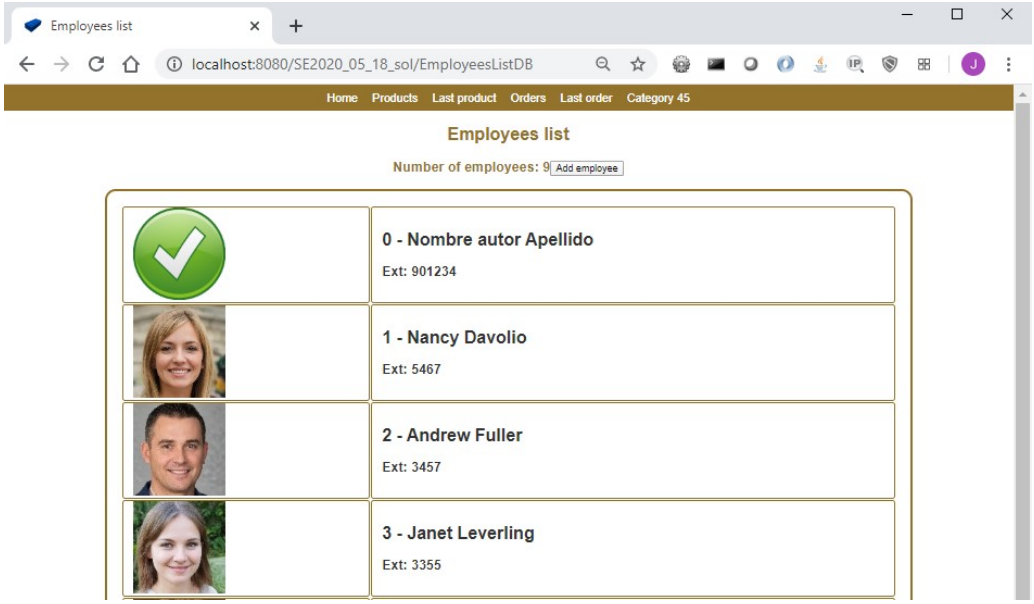
- ☐ *The solution is in the folder SE2020_05_18 (0.5 point)*
- ☐ *The solution shows your name and card id in the table (0.5 point)*
- ☐ *The solution shows the list of employees with the specified fields (2 points)*
- ☐ *The solution shows the fields with the format shown in the image*
  (id firstName lastName in a row and the extension in the next line. (0.5 point)
- ☐ *The solution shows the image of the employee (0.5 point)*

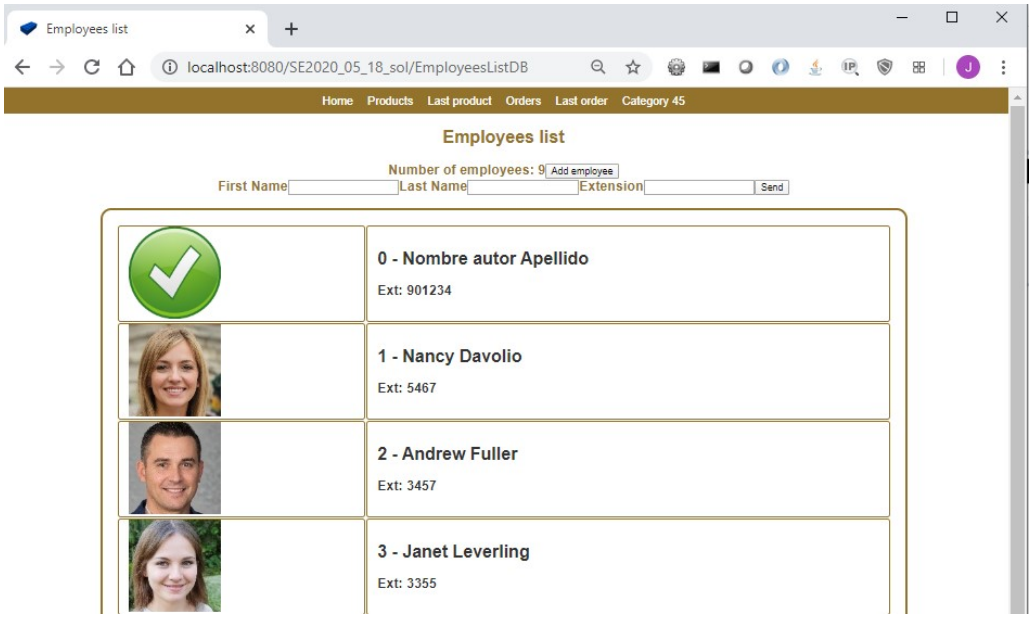
EXERCISE 2 (4 POINTS)

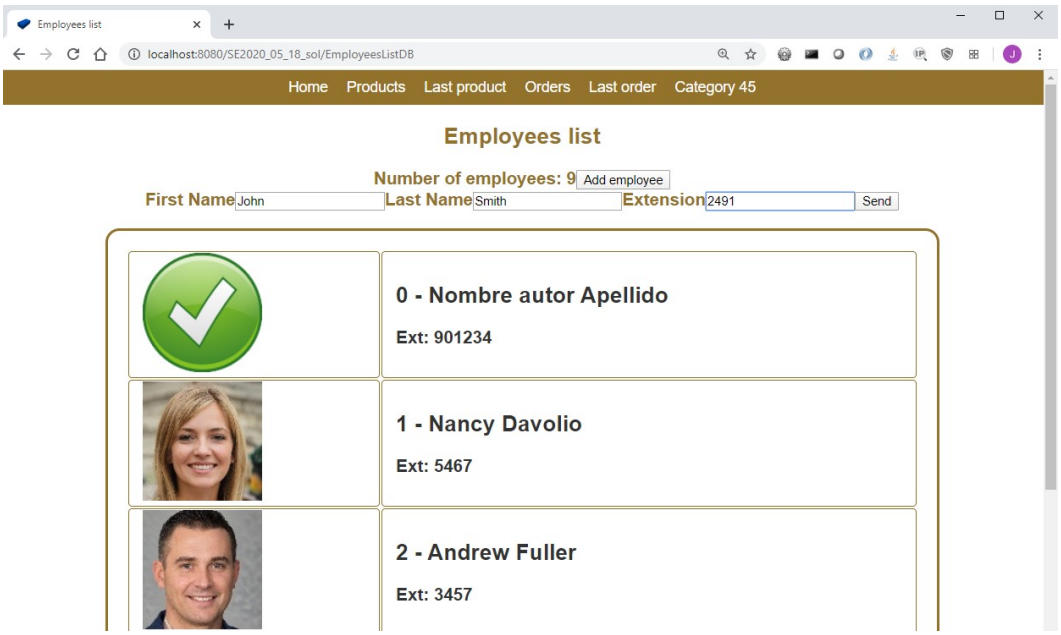
Add a button at the top of the page using JavaScript that enables adding new employees.

When you press the *AddEmployee* button, you will show three inputs to write the new employee's name, last name and extension, and a button to send the information to the database.

(*) If you do not how to do it using JavaScript, you can do it using a new servlet called *FormServlet.java* with a form that includes the described fields although the score of the exercise will be lower.







☐ *Form shows the described fields (2 points)*

☐ *Form and button have been developed using JavaScript (2 points)*

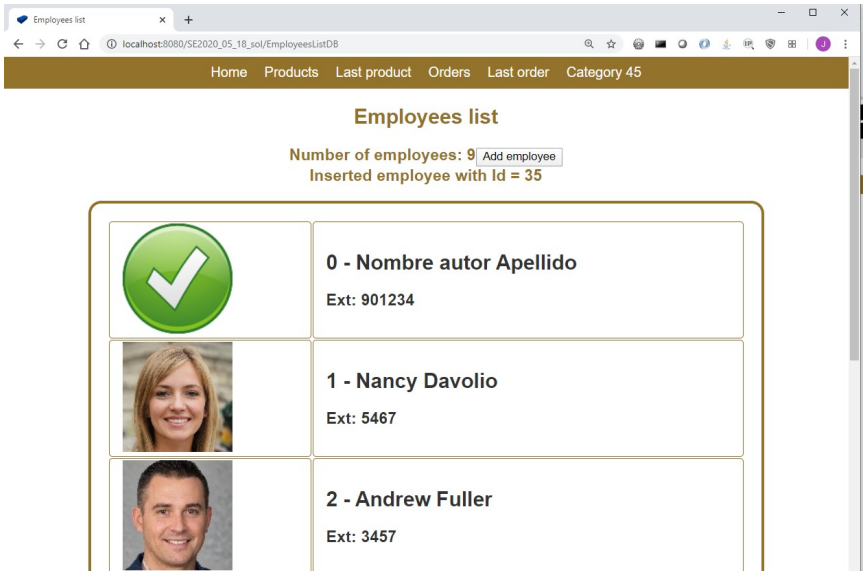
EXERCISE 3 (2 POINTS)

When the "Send" button is clicked, the new employee's data will be saved in the database using AJAX showing the id assigned to the employee in the database. The servlet that save the data is called *InsertEmployee.java*

The sentence to get the last assigned value in the database is obtained using the following SQL query: *SELECT @@identity as Id FROM Employees*

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 be lower.

***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…)



☐ *The solution inserts the new employee in the database (1 point)*

☐ *The solution uses AJAX and shows a confirmation message (1 point)*

☐ ***Additional point**: Improvements to this application (1 point) Describe:*_____