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Dipartimento di Ingegneria dell'Informazione ed Elettrica e
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Distributed Programming
Company Web Service
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Gruppo 9

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Summary

Introduction..... 3

Package..... 4

How to use..... 5

Company Web Service

Introduction

This project requests to implement the web services for the management of a company to provide several functions for different clients. The architecture is composed of:

- server Tomcat: to generate a connection from the clients to the services;
- SOAP+WSDL: to guarantee a protocol of message transmission XML-based;
- Java classes: to implement the services;

As far as the program concerned, it is thought for being used by different types of applications that require specific services.

Hence, the next paragraphs describe the packages “com.exercice.ws” that contains the implemented scripts to deal with properly these services.

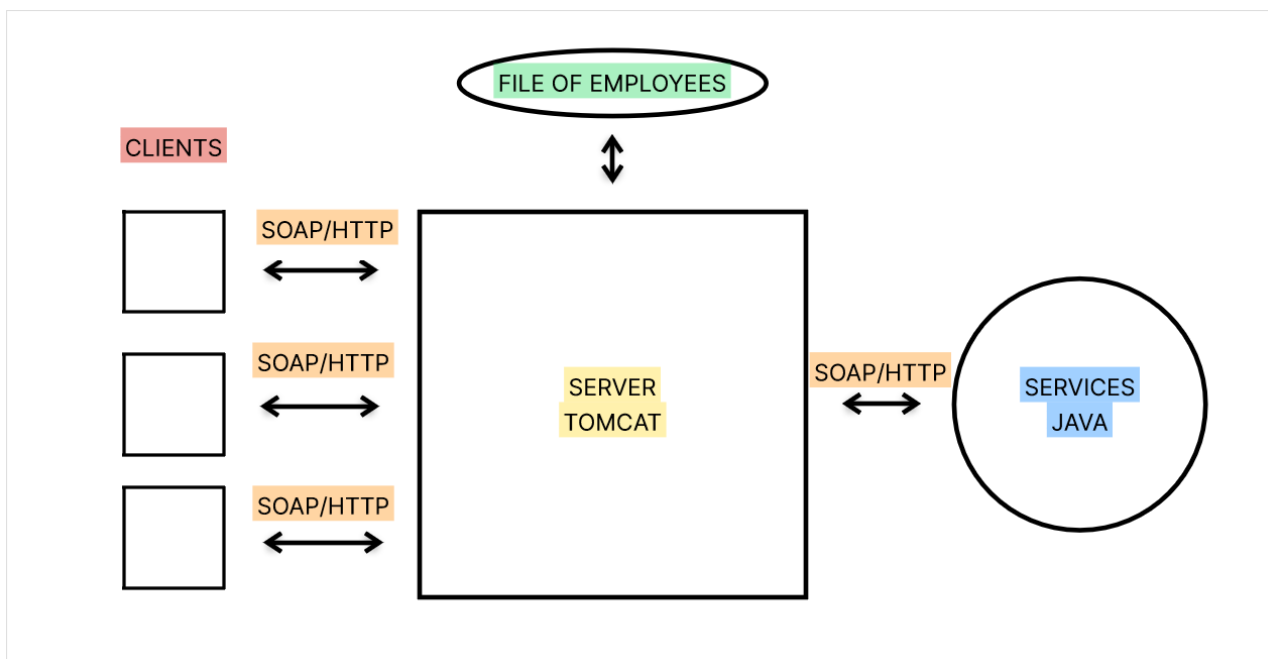


Figure 1 - Architecture

Package

The package contains different classes:

- **Employee.java**: implements the class Employee used for each instance of the object.
- **EmployeeCreationService.java**: the class implements the web services, such that:
 - creationEmployee (int id, String name, String surname, String email, int telephone, String department): to create an employee object, to add it in a list of employees and to write the list on a file through serialization. So, it returns a String of the stored employee's informations;
 - viewEmployees (): to read a list of employees from a file for showing it. So, it returns a String of a list of all the employers;
 - searchEmployees (String name, String surname, String email, String department): to search one or more employees filtering by their name, surname, email or department. So, it returns a String of the filtered employees;
 - setAgenda (int id, String stringDate, String text): to set a note for an employee by his id, date and description of the note. So, it returns a string of the operation success;
 - updateAgenda (int id, String stringDate, String text): to update a note for an employee specifying his id, date and new description of the note. So, it returns a string of the operation success;
 - deleteAgenda (int id, String stringDate): to delete an employee's note specifying employee's id and the note's date. So, it returns a string of the operation success;
 - viewAgenda (int id): to view all the agenda for an employee by his id. So, it returns a string of the notes;
 - viewAgendaByDate (int id, String stringDate): to view a specific employee's note by his id and a date. So, it returns a string of the note.
- **MapElement.java**: the class implements the object *MapElements* with two attributes: *key* and *value*.
- **MapAdapter.java**: the class is used as a wrapper to manage the XML Adapter for the Agenda HashMap.
- **Agenda.java**: the class is an adapter used to implement our Agenda HashMap. In particular the map's key is a Date and map's value is a String to represent the note for an employee.

How to use

To use this application, you have to generate a web service:

1. **Create the server:** right click on EmployeeCreationService.java > Web Service > Create Web Service.

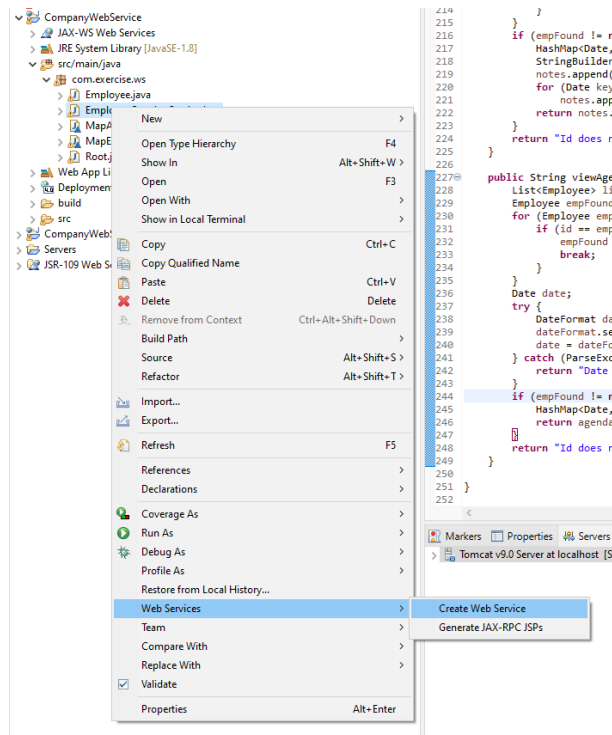


Figure 2 - Start web service configuration

2. **Web Service's settings:** set the web server's settings as shown in figure and click on next.

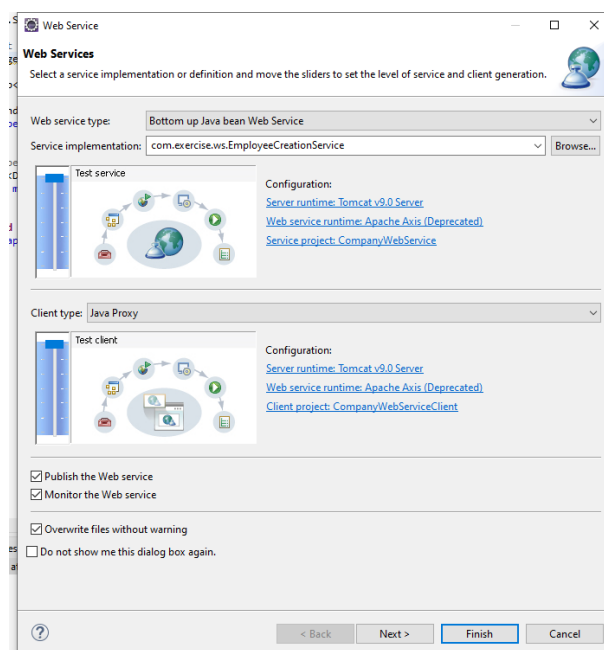


Figure 3 - Choice of auto-implementations

3. **Select the java bean's methods:** choose which bean you want to implement (it is suggested all).

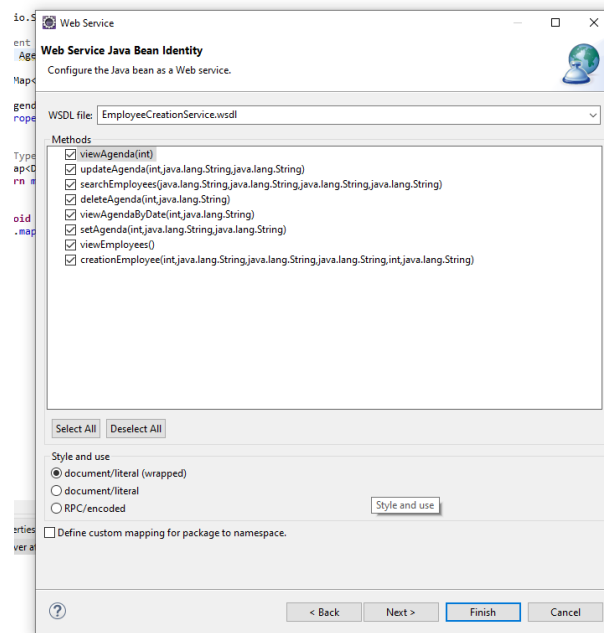


Figure 4 - Selection of methods to implement

4. **Start the server:** start the server clicking on the relative button and go on.

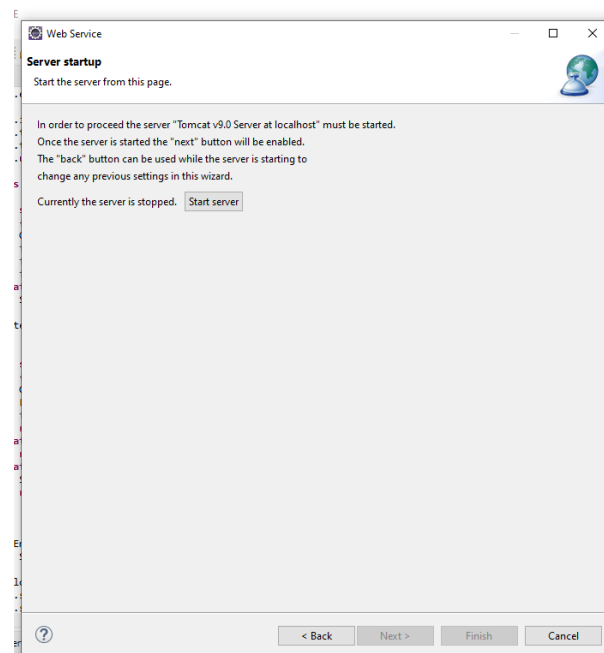


Figure 5 - Start the Tomcat's server

5. **Select the method to test:** choose which method you want to test (it is suggested all) and finally click finish.

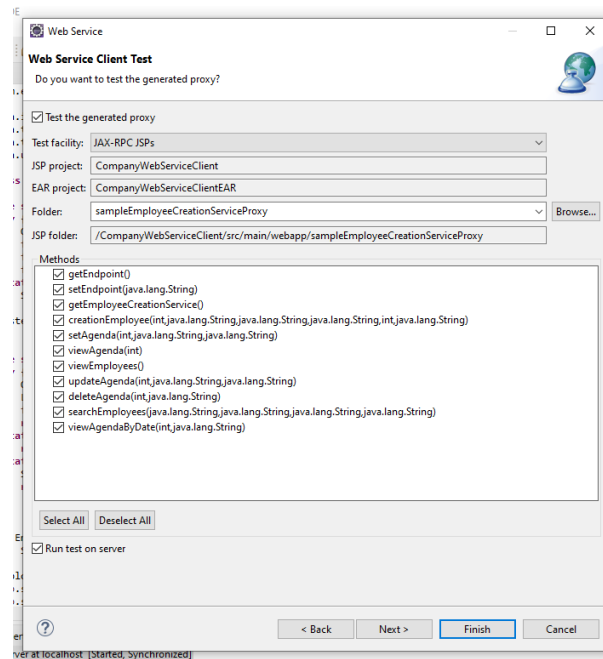


Figure 6 - Chose the methods to test