

Java Software Engineer - Developer Test

DC LATAM

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The Candidate must deliver a software application according to the following requirements:

1 Baseline Requirements

- The application must be designed using good design practices and coding (describe the most relevant)
- The application must be done using an Open Source Java IDE of choice (recommended: IntelliJ Idea community, Netbeans IDE, Eclipse IDE)
- The solution must be published in a public DVCS repository, such as GitHub
- The solution will be downloaded, compiled and executed in a developer machine to verify a correct configuration management approach. Therefore, the solution must be published with all the artifacts and instructions to compile and execute the application
- Basic Object Oriented Programming principles must be used, such as Inheritance, abstraction, encapsulation
- SOLID principles must be used

2 Application Requirements

ID	Summary
1	Create an MVC application. Can be based in Spring(or Spring Boot), JSF, Struts or Vaadin
2	The application must be delivered in a WAR file
3	The application must be deploy-able in a Wildfly Server or Spring boot auto container
4	The application must use JDK 1.8+
5	Create a Data Access Layer to consume the following REST APIs: <ul style="list-style-type: none"> http://dummy.restapiexample.com/api/v1/employees http://dummy.restapiexample.com/api/v1/employee/1 These API methods return a list of employees and employee data by ID
6	Create a Business class (EJB, for example) to compute the following value: <div style="border: 1px dashed #ccc; padding: 10px; margin: 10px 0;"> $\text{employee_anual_salary} = \text{employee_salary} \times 12$ </div>
7	Create a Controller Class with methods to return the employees list and employee data by ID
8	Create a view to show the employee information, the view must present the following components and behavior: <ul style="list-style-type: none"> One text box, where the user can input the employee ID One button to execute the Employee search If the input text box is empty, the search result must return the complete employee list If the text box contains a valid employee ID, the search result must return the particular employee information The returned employee list must be shown in a table or grid, including the employee_anual_salary computation
9	User Interface Guidelines: <ul style="list-style-type: none"> The application must use Bootstrap or Material Design The application must contain a Menu and brand Image Desirable technologies to use on the front-end (use 1, complementary to the Application framework selected): <ul style="list-style-type: none"> Javascript/Typescript Angular JQuery ReactJS VueJS
10	The application must include Unitary Tests for at least one of the Business Layer methods. Using JUnit5