

Backend Task

Thank you for your application at code**flair**!

In order to be able to get an idea of your coding skills, we have prepared a small task for you.

You will get from us a maven project `CodeflairApplication` with four modules:

`ApplicationMain` is the module you are asked to improve and extend.

The other three modules (`ApplicationServiceApi`, `ApplicationServiceImpl` and `MockConstants`) should not be changed.

Class `ApplicationServlet` in module `ApplicationMain` delivers an HTML-snippet using the `ApplicationService`. The class is not long, but quite a few things went wrong when it was written.

Your first task is to refactor the module `ApplicationMain`. This is not only about finding bugs, but also about correctly applying other crucial aspects of software engineering.

The second task is to implement an additional requirement: if the servlet for any reason cannot provide the required snippet, a snippet with an error message should be returned as well as an appropriate HTTP status code. The html snippet to be returned is already provided in constant `ApplicationServlet.ERROR_HTML`.

Also, please be aware that this application is handling sensitive data, so make sure all the required topics are covered.

As a last point, please give us some description (no coding required) about what could be improved in the other modules (`ApplicationServiceApi`, `ApplicationServiceImpl` and `MockConstants`).

A sample "`settings.xml`" file with a working Maven setup is provided.

If you have any questions about the task or if you have technical issues with the provided code, do not hesitate to contact us.

We are looking forward to your ideas and to your code!