**WAES Scalable Web**

# **REQUIREMENTS**

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**Overview**

The goal of this assignment is to show your coding skills and what you value in software engineering. We value new ideas so next to the original requirement feel free to improve/add/extend.

## ****SCOPE****

1. Receives 2 Base64 encoded JSON strings and compare them finding differences.
2. Testable and ran by itself.
3. Production ready state when delivered.
4. Web based
5. The application should be prepared to scale in order to add endpoints/functionality if required at any given moment.

## ****OUT OF SCOPE****

1. Integration with other applications.
2. Running in a cloud base environment.
3. Running in a distributed environment.

## ****ASSUMPTIONS, RISKS, ISSUES AND DEPENDENCIES****

1. Encoding is done with Base64 UTF-8 standard.
2. Default port Tomcat 8080 is available.
3. Browser works over http standard.
4. Java 8 is being used.

## ****FUNCTIONAL REQUIREMENTS****

1. Provide 2 http endpoints that accepts JSON base64 encoded binary data on both endpoints
   1. <host>/v1/diff/<ID>/left and <host>/v1/diff/<ID>/right
2. The provided data needs to be diff-ed and the results shall be available on a third endpoint
   1. <host>/v1/diff/<ID>
3. The results shall provide the following info in JSON format
   1. If equal return that
   2. If not of equal size just return that
   3. If of same size provide insight in where the diffs are, actual diffs are not needed.
   4. So mainly offsets + length in the data

## ****NON-FUNCTIONAL REQUIREMENTS****

1. Solution written in Java
2. Internal logic shall be under unit test
3. Functionality shall be under integration test
4. Documentation in code
5. Clear and to the point readme on usage
6. Application should be shared via GitHub in a public domain

## ****NICE TO HAVES****

* Suggestions for improvement