Design Challenge 4

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OPEN
DATA
HUB

https://opendatahub.com/

Open Data Hub is the cross-border digital platform that helps start-ups, companies and research institutes to develop digital solutions based on real data. It connects data from different data providers and makes this data easily available for data consumers.

Context	The Open Data Hub platform receive data from different sources, and it is important to ensure the quality of the data received. Some kinds of fields have well defined constraints that can be checked for a data point to be considered valid.
Open Data Hub	• Quick start guide https://opendatahub.com/quickstart/ • Data sets description https://opendatahub.com/datasets/ • If you have any doubts: help@opendatahub.com
Challenge	The challenge is to create a component that can check the data received based on configured constraints and on some naming conventions. The component should take data in the JSON format and use validation rules to verify the validity of the data. These rules can be configured or be based on conventions (for example, a field with “temperature” in the name should always be numeric and higher than -273). The component should allow the addition of new types of validation rules.
Requirements	• Create a validation component that can validate data in JSON based on configured constraints. • The component should have at least 4 implementations that provide validation rules and should be extensible to allow the addition of others. • There should be possible to associate naming conventions (using regular expressions) to validation rules. • The validation constraints and the conventions should be defined in a configuration file.

	• The component should work for different elements based on the configurations provided.
To test	• Choose two element types from Open Data Hub APIs to test your solution: • Create tests with valid and invalid JSON files.
Number of students	2
Lab Points	10 (max for each student)
Condition	If you take this challenge, you should create an open-source repository to share the code from your solution.