DevDays HL7® FHIR®

HL7 FHIR

FHIR Mapping Language – Let's build!

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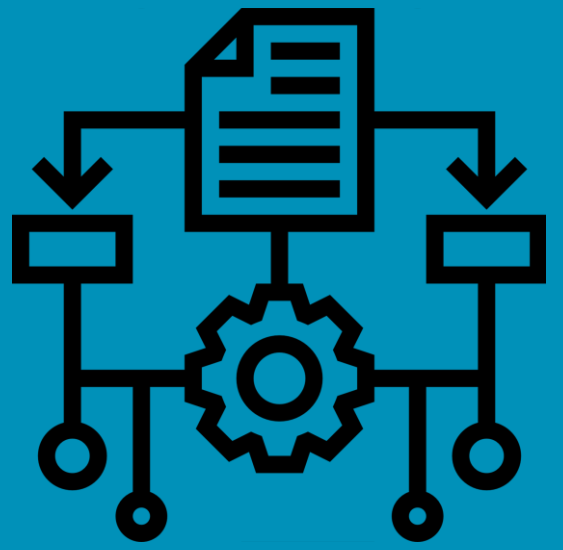
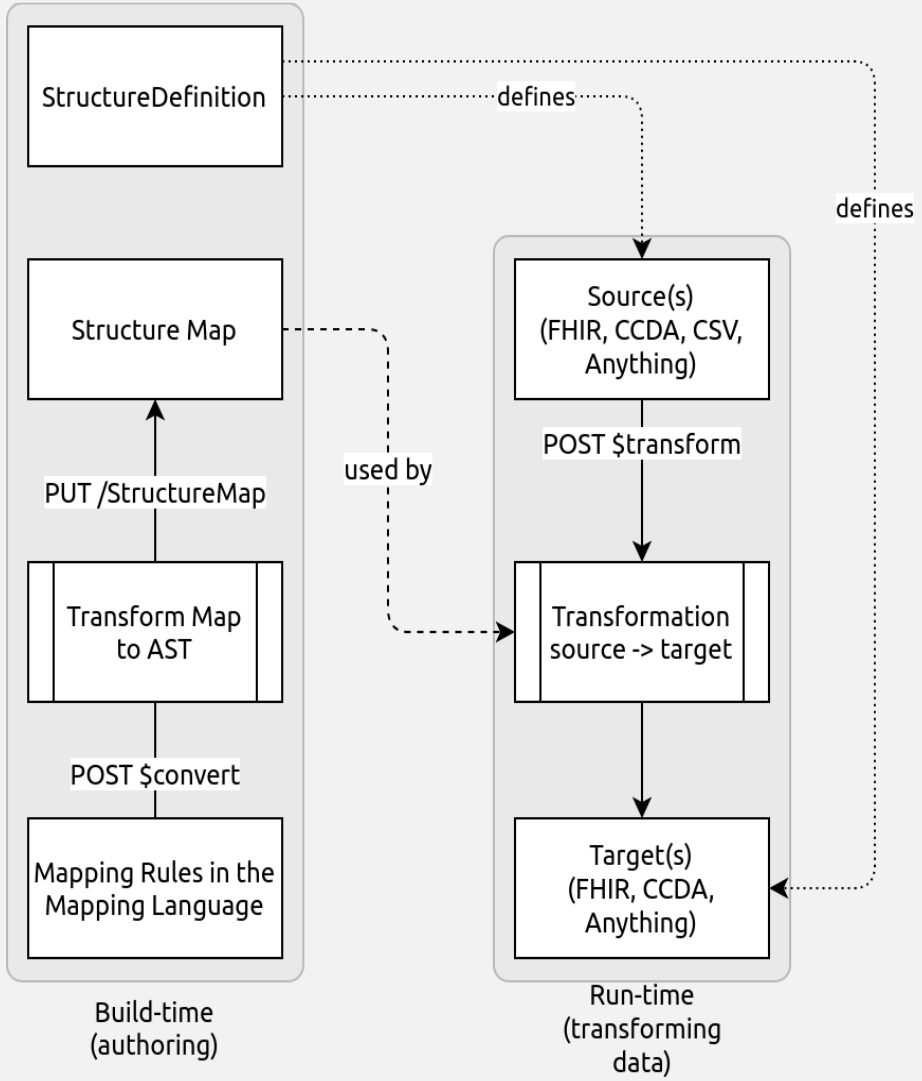
Overview

- Intro $convert / $transform
- Mapping a Custom Resource -> FHIR
- Transform CodeSystems with ConceptMaps
- Transform CSV -> FHIR



How does the FHIR Mapper work?

- Authoring process ($convert)
  - Human-readable mapping rules as an input
  - Syntax check
  - StructureMap resources can be exchanged via REST API
- All sources and targets are defined by StructureDefinitions
  - Enables type checking
  - Errors in the mapping source can be caught early
  - Validation of the target
- $transform for executing a StructureMap

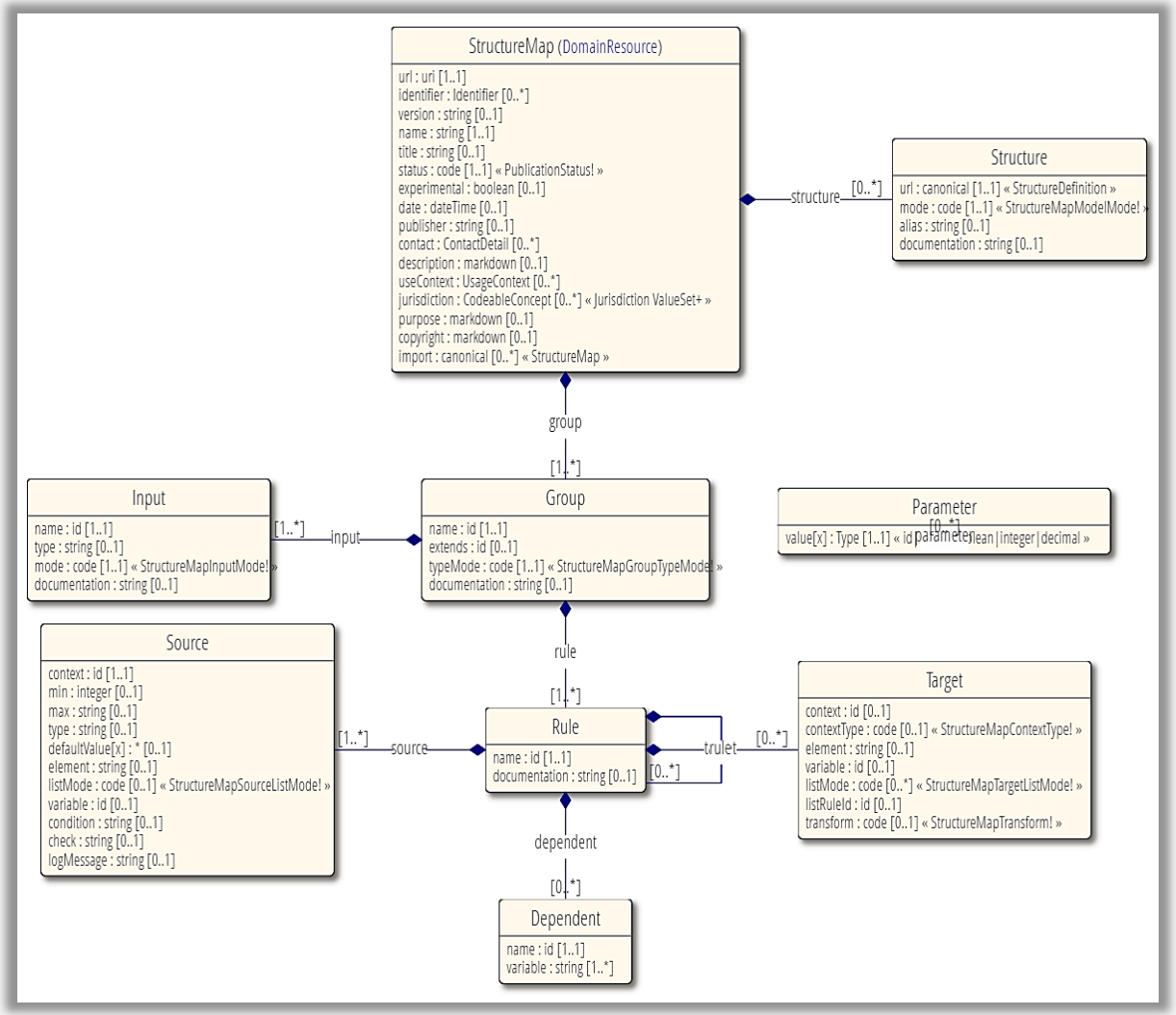


Download Postman collection – Let's build!

- https://bit.ly/2YkJpey
- We will be using the FHIR Mapper (.NET implementation of the FHIR Mapping Language)
- https://vonk.fire.ly/
- Contains all examples:
  - Transforming a Custom Resource to FHIR
  - Transforming CodeSystems with a translate function
  - Transforming CSV -> FHIR

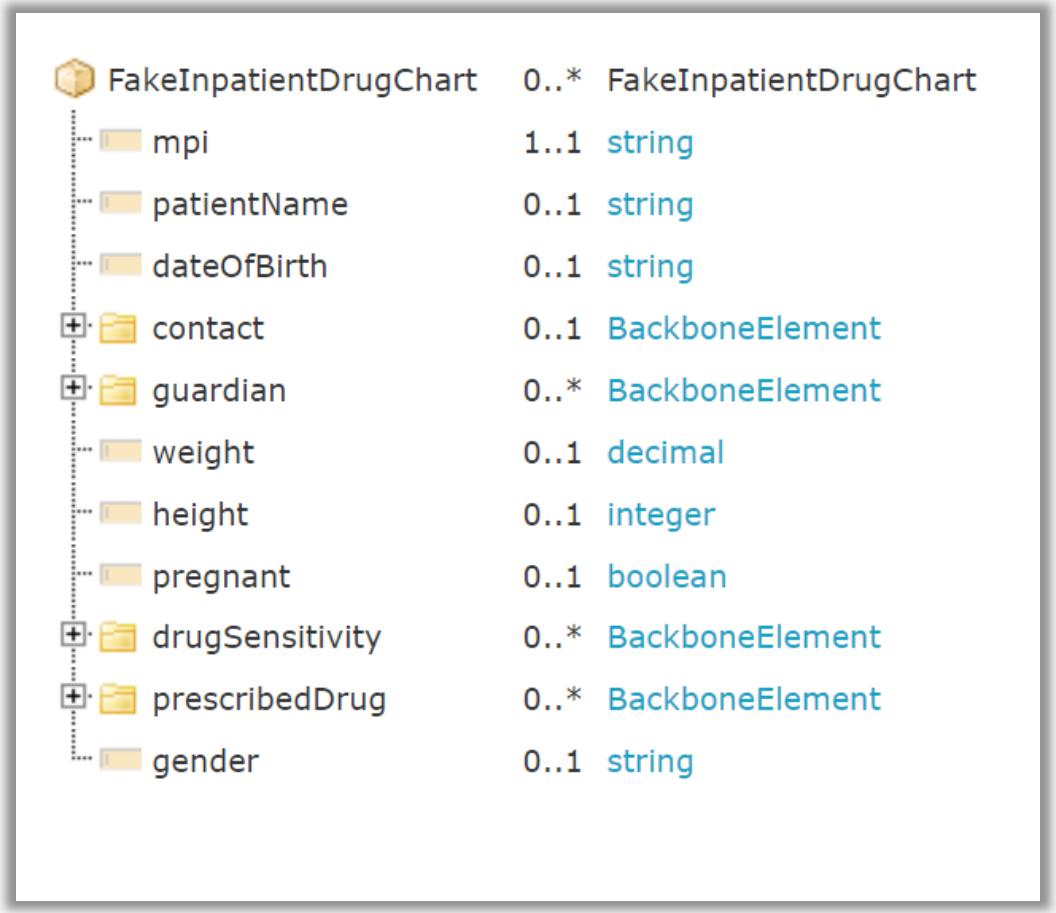
Exploring $convert

- Set the correct Content-Type and Accept headers
- Add metadata to the StructureMap
- Create an empty Patient resource



Exploring $transform

- Use a custom resource (“FakeInpatientDrugChart”) as the source
- Custom resources can be used natively in Vonk
- Execute $transform



Combine target resources – FHIR Bundle

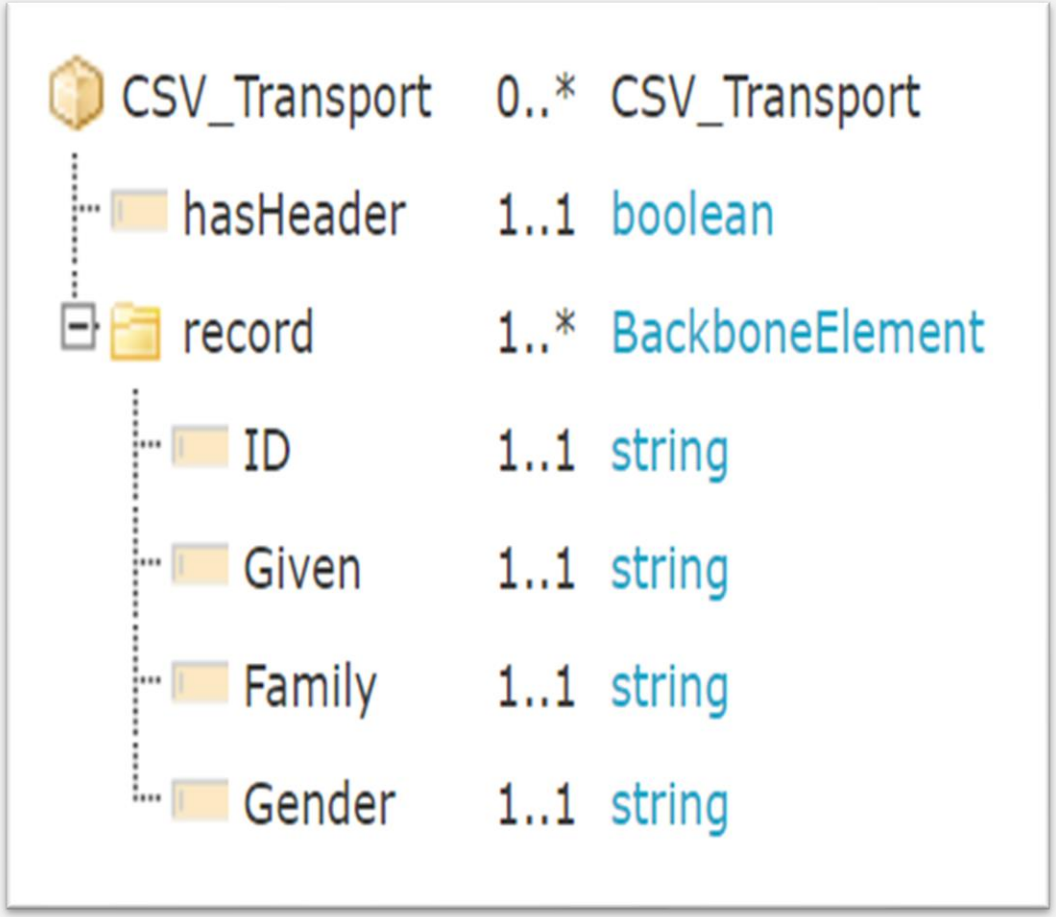
- Extend the map with more mapping rules
  - Try to map repeating elements – collate option!
- Multiple targets must be collected in a FHIR Bundle

Translating CodeSystem with translate

- Terminology operations can be used in the Mapping Language
  - Example: translate
- translate(source, map_uri, output)
- Snapper from CSIRO is a great and free tool to generate concept maps: http://ontoserver.csiro.au/snapper2/index.html

Mapping CSV to FHIR

- CSV files can be posted natively
- No need to create logical models
  - Will be automatically created in the background
- Metadata is accessible
- First row is interpreted as the header



More about the FHIR Mapper

- http://docs.simplifier.net/mappingengine/index.html
- https://simplifier.net/fhirmapperr4/

- https://confluence.hl7.org/display/FHIR/Using+the+FHIR+Mapping+Language

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