

Standards-based Software Platforms and Web Services

FHIR Tutorials

Protocols and Technical Fundamentals

FHIR Structure Definitions

<http://hl7.org/fhir/resourcelist.htm>

Contains the data structure of each item in the resource list. **This is your go-to page** as you get to the Implementation Phase or specifically data-relating stuff. Some notable content are:

- Structure (basic information XML, JSON format, etc.)
- Constraints
- Terminology
- A variety of other info depending on the item.

FHIR Implementation Guides (IG)

starting points:

Tooling for IG authoring:

1. FHIR Shorthand (FSH) -> Sushi (gen structure definitions) -> IG Publisher (gen web pages - and does lots of validation)
2. Forge, simplifier (registry handler). NZ has a licence for NZ use. simplifier.net.
3. e.g. IPS IG: <https://build.fhir.org/ig/HL7/fhir-ips/>

FHIR REST Protocol

Use of HTTP and REST

Use of XML and JSON Serialisation

- Creating an XML Resource Serialisation
- Creating a JSON Resouce Serialisation

HTTPS and OAuth and

- Use of PKI Certificates & Certificate Authorities

Querying Service Metadata and Versioning

Retrieving (GETting) a FHIR Resource

Querying a set of FHIR Resources

PUTting a FHIR Resource or set of Resources

Implementation

Libraries and Servers for FHIR Implementation

Programming Language Support

- Java
<https://hapifhir.io/>
 - HAPI Getting Started
- C#
- Java/ECMA Script
- Parsing and Querying an XML FHIR Resource Serialisation
 - XSLT
- Parsing and Querying a JSON FHIR Resource Serialisation
 - e.g. Typescript, <https://graphql.org/>....

Programming Libraries and Frameworks

- Open Source
- Commercial
SMILE CDR <https://www.smilecdr.com/>

Testing Servers

<https://confluence.hl7.org/display/FHIR/Public+Test+Servers>

Use of SNOMED CT Codes

https://en.wikipedia.org/wiki/SNOMED_CT

[What is Snomed?](#)

[Easy to use SNOMED in 5 minutes tutorial](#)

REST Query to SNOMED Server

[SNOMED CT Snapshot Rest API Documentation](#)

[OntoSever FHIR REST API](#)

<https://confluence.ihtsdotools.org/display/MT/Rest+API+documentation>

SMART on FHIR ([link](#))

[Overview](#)

[Purpose](#)

Use of OAuth ([Asymmetric](#) and [Symmetric](#))

[Launching Applications](#)

Specific FHIR Resource Usage

Australian Government Digital Health Agency Resource:

<https://developer.digitalhealth.gov.au/taxonomy/term/361/all>

<https://developer.digitalhealth.gov.au/resources/news/my-health-record-fhir-gateway-v2-1-released>

FHIR AU Base 2:

<http://build.fhir.org/ig/hl7au/au-fhir-base/>

<http://build.fhir.org/ig/hl7au/au-fhir-base/profiles.html>

New Zealand FHIR Registry

<https://www.health.govt.nz/our-work/digital-health/digital-health-sector-architecture-standards-and-governance/health-information-standards/new-zealand-fhir-registry>

Patient (in various National/Regional IGs)

New Zealand

<http://build.fhir.org/ig/HL7NZ/nzbase/branches/master/StructureDefinition-NzPatient.html>

Australia

<http://build.fhir.org/ig/hl7au/au-fhir-base/StructureDefinition-au-patient.html>

Practitioner (in various National/Regional IGs)

New Zealand

<http://build.fhir.org/ig/HL7NZ/hpi/branches/master/StructureDefinition-HpiPractitioner.html>

<http://build.fhir.org/ig/HL7NZ/hpi/branches/master/StructureDefinition-HpiPractitionerRole.html>

Australia

<http://build.fhir.org/ig/hl7au/au-fhir-base/StructureDefinition-au-practitioner.html>

<http://build.fhir.org/ig/hl7au/au-fhir-base/StructureDefinition-au-practitionerrole.html>

Organization (in various National/Regional IGs)

New Zealand

<http://build.fhir.org/ig/HL7NZ/hpi/branches/master/StructureDefinition-HpiOrganization.html>

Australia

<http://build.fhir.org/ig/hl7au/au-fhir-base/StructureDefinition-au-organization.html>

Medication (in various National/Regional IGs)

<http://build.fhir.org/ig/hl7au/au-fhir-base/profiles.html> (Refer to 'Medication' tab)

International Patient Summary (considering extensions for National/Regional contents)

IPS-related Servers

IPS-related Servers (1).

This page contains the Public Test Servers serving IPS-related purposes and, more importantly, ROMA team's summary+review of each one.