



## Create a Basic FHIR Document

### FHIR Documents

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*The speaker will be in the hands-on area to answer your questions!*

During the hands-on session of the FHIR Documents tutorial we will explore creating, validating, displaying, and processing a FHIR document. The following exercises are progressive, and each step builds on the previous steps, so you should try them out in sequence:

1. Create a basic Composition resource with narrative content
2. Create a FHIR document bundle from your Composition
3. Render your FHIR document
4. Add additional resources to your document

#### 1. Create a basic Composition resource with narrative content

The main resource in a FHIR document is the Composition resource. It critical document metadata such as the title, document type code (typically a LOINC code), the document creation date, references to Patient, Practitioner, and other resources identifying participants in the document, and finally sections with narrative content and optionally other resources such as Condition, MedicationStatement, etc.

- Create a Composition resource with the following characteristics:
  - Set Composition.identifier to a new UUID (can use <https://www.uuidgenerator.net/>)
  - Set Composition.status to "preliminary"
  - Set Composition.type to 11506-3 (<http://loinc.org>)
  - Set Composition.date to today's date
  - Set Composition.title to "Progress Note"
- Add Patient and Practitioner references. Either create new Patient and Practitioner resources or search for existing ones on one of the FHIR test servers.
  - Set Composition.subject to the URI of the Patient resource
  - Set Composition.author and Composition.attester to the URI of the Practitioner resource
  - Ensure that the Patient resource contains narrative (Patient.text)
- Add Composition header narrative
  - In Composition.text, add the following:
    - Date: <today's date>
    - Author: <name of the practitioner>
    - Attester: <name of the practitioner>
- Add an Allergies section
  - Create a section element in the Composition resource
  - Set Composition.section.title to "Allergies"
  - Set Composition.section.code to 48765-2 (<http://loinc.org>)
  - Set Composition.section.text.div to "<p>Penicillin: Hives</p>"



## 2. Create a FHIR document bundle from your Composition

- Create a new Bundle resource with the following characteristics:
  - Set Bundle.identifier to a new UUID (can use <https://www.uuidgenerator.net/>)
  - Set Bundle.type to "document"
- Add 3 entry elements.
  - The first will contain your Composition resource
  - The second will contain your Patient resource
  - The third will contain your Practitioner resource
- POST your document bundle to a FHIR server. Correct your document if you receive errors.

## 3. Render your FHIR document

- If you created your FHIR document using JSON, GET the document back from the FHIR server as XML by setting the Accept header to application/fhir+xml
- Download the FHIR document rendering stylesheet.
  - <http://build.fhir.org/fhir-3.1.0-XMLTools-0.01.zip>
  - Unzip the folder and move DocumentToHTML.xslt to the same directory as your document bundle
- Add the following processing instruction to the top of your Bundle XML file:
  - `<?xml-stylesheet type="text/xsl" href="DocumentToHTML.xslt"?>`
- Open your document bundle in a web browser to view it
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## 4. Add additional resources to your document

- Create an AllergyIntolerance resource representing an allergy to penicillin that manifests as hives.
- Add an entry element to the allergies section of your Composition and referencing your new AllergyIntolerance resource.

Have fun, and remember to ask for help if you get stuck !