

First constraints

This exercise aims to allow you to familiarize yourself with creating a FHIR profile that has simple constraints.

In this exercise, you will use FHIR Shorthand (FSH). You can use the Simplifier.net FSH playground to visualize your work. Other options are to use Sushi to compile your FSH files, or use FSH online: <https://fshschool.org/FSHOnline/#/>.

Exercises

1. Based on the first mapping from the previous exercise, create constraints for the elements that are mandatory and do not need an extension:
 - Create a file for your FSH, called MyCoursePatient.fsh.
 - Setup a new profile with the 'Profile' keyword. Use 'MyCoursePatient' for its value – or feel free to choose something less generic.
 - Add the 'Parent' keyword, which takes the base FHIR resource type as value.
 - It is recommended to also add the 'Id', 'Title' and 'Description' keywords. Choose any value for them you would like.
 - Now create cardinality constraints for the mandatory items. See the FSHQuickReference.pdf file in your handout or <http://hl7.org/fhir/uv/shorthand/reference.html#rules-for-profiles-extensions-and-instances> for reference.
 - Set the "MustSupport" flag for all elements in the logical model, by adding 'MS' at the end of the rule.
2. To create a FHIR StructureDefinition from your FSH file, use the FSH Playground on Simplifier.net:
 - Go to <https://simplifier.net/fsh> and log in
 - Copy the FSH from your file and paste it into the lefthand side window of the playground
 - Click on "Run" or use Ctrl-Enter to visualize your FSH on the righthand side
 - Click on the JSON or XML tab to see the FHIR StructureDefinition
 - Copy the StructureDefinition and paste it into a new file

Other options to create the StructureDefinition:

- For Sushi: open a command prompt and browse to your main working directory (so _not_ to the input\fsch folder in it). Then enter the sushi command to run the compiler:
`sushi .`
- For FSH online, go to <https://fshschool.org/FSHOnline/#/>. Copy the contents of your FSH file and paste it into the left hand window. Click on 'Convert to JSON' to create a FHIR StructureDefinition.