



DICOM object validation with the Clunie/Joela/DVTK tool

- Ruby on Rails will be used for building web interface for uploading HL7/DICOM file that needs to be validated.
 - Upload file interface will be part of Gazelle's System Functionality Manager.
 - This involves necessary HTML code in the "form" part of the view, appropriate code in controller to handle file upload and necessary code in the model to save filename/file in the database.
 - The [Rails Wiki](#) has a good page that discusses file uploads in more depth.
 - We will use Ruby's system calls with the system () method: to invoke Clunie/Joela validation tool
 - Invoking Clunie/Joela tool itself happens within the Evaluation Manager which manages the evaluation by verifying conformance of the messages with the standard using third party validation tools.
 - Within Rails EvaluationManager controller we will have the following code to invoke software validation tool
- The results from Clunie/Joela tool will be parsed by Rails EvaluationManager controller with the aid of Ruby code/scripts and the results will be displayed to the user.
 - For validating DCM files using DVTK tool, we will use Rails's AWS (Action Web Service – Rails come preloaded with AWS and AWS provides support for the SOAP and XML-RPC protocols) which will be part of Gazelle' Evaluation Manager.

```
image_filename = "fileToBeValidated.dcm"  
check_results = system("<validation Tool> #{  
  fileToBeValidated.dcm }")  
puts check_results # => 'OK!'
```