Implementation of the OpenHart workflow in DAE platform

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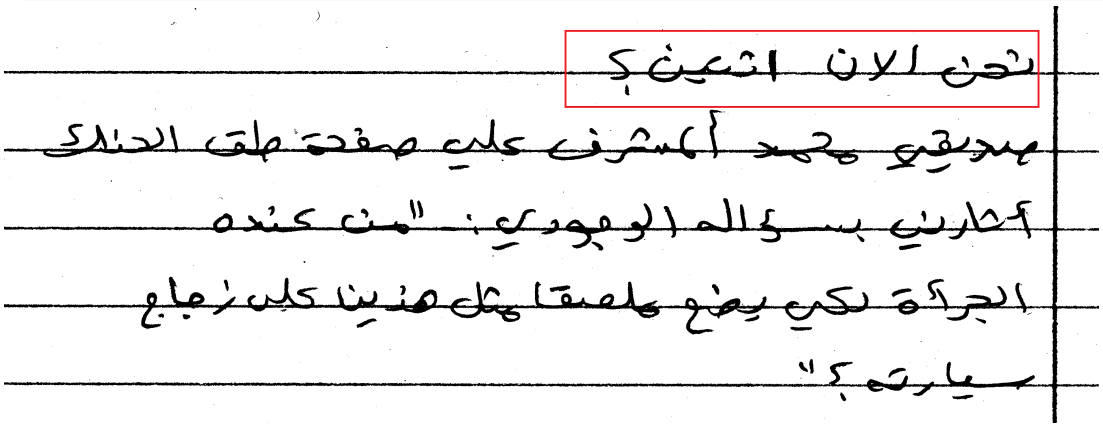
Context
OpenHart

Description

- OpenHart is competitive exam set up by the National Institute of Standards and Technology
- Teams of developers are evaluated on their performance in handwriting documents transcription and translation
- The evaluation tool is not really user friendly



Context
Working environment

The QGAR team

- QGAR is a research team of the laboratory "Loria"
- They are working in the area of graphics recognition and document analysis

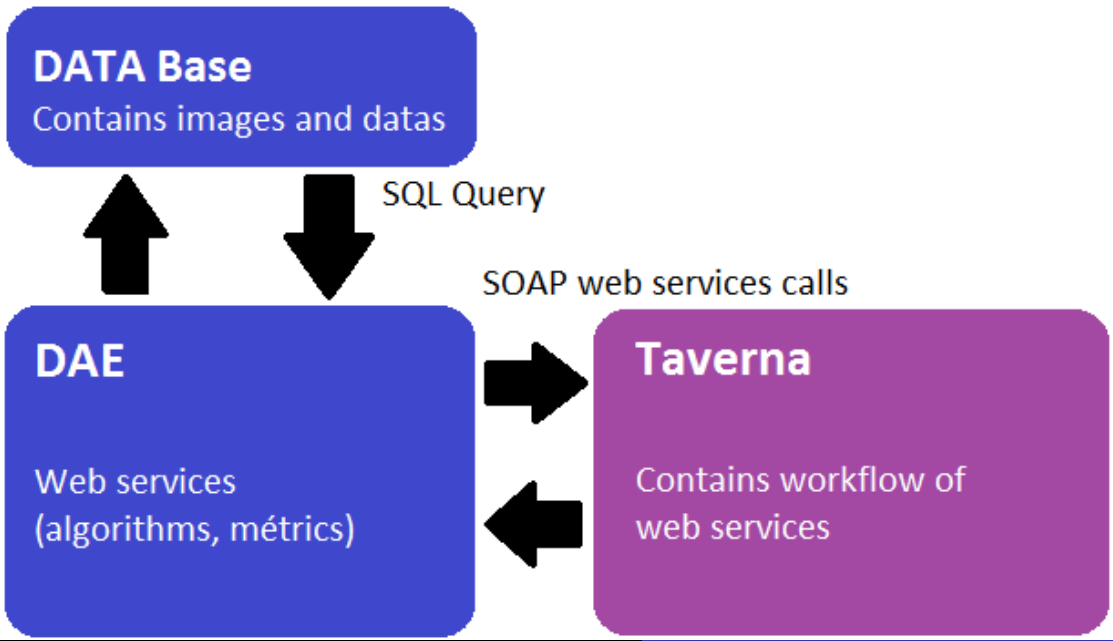
Project goal

- Implementation the OpenHart evaluation system on DAE platform
- DAE website and Taverna workbench

Context
What we have to do

Proof of concept

Proof of concept: OpenHart implementation on the DAE platform using web services



Our work
DAE Analysis

The goal

Create and link two simple web-services :

- Generate a list of random images URL in DAE
- For each URL, download and rotate the image

Attempts to communicate with DAE

- Use pre-generated URL to send a request
- Use the WSDL representation of web-services
- Simply execute web-services with Taverna

Our work
OpenHart Analysis

The goal

Modeling the OpenHart evaluation process with Taverna

Tasks

- Create a simple model of OpenHart's pipeline
- Web services specifications
- Understand and document metrics(evaluation tools) for the algorithms' evaluation
- Stude an OpenHart participant's algorithm to test the OpenHart pipeline

Our work
Problems encountered

DAE communication protocols

- Difficult to use different tools
- Insufficient communication

Difficult to understand how the OpenHart pipeline works

- Few documentation
- Complicated makefile

Upcoming work
What we are going to do

Implement OpenHart in DAE

- Implement ability to run algorithms on DAE.
- Implement ability to run evaluation tools on algorithms.

Performances analysis

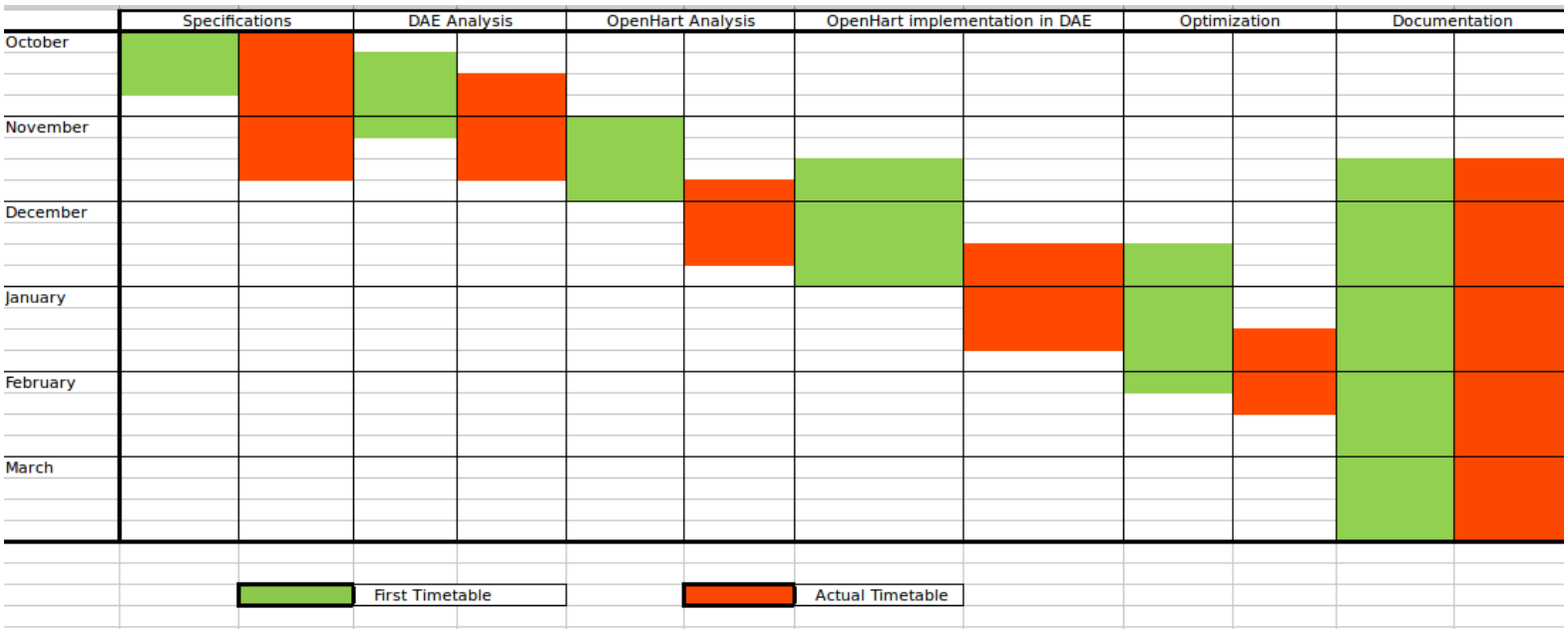
- Find possible errors in the implementation.
- Suggest some improvements.
- Correct errors.
- Write a manual of possible improvements.

Documentation

Keep documenting the code

Upcoming work
Planned Work

The timetable has changed



Timetable comparison

Conclusion

- Specifications and learning phases have been completed
- Starting implementation
- We would like to thanks Bart Lamiroy and Jean-François Scheid for their help.