Homework III Report

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Part I. Creating and running my CPE

Firstly, I use the UIMA default file system collection reader to read the data file.

Secondly, I add my hw2 analysis engine into the CPE.

Thirdly, I write a Xmi Cas Consumer writer to write the content in CAS to the Xmi files.

Finely, my pipeline program successfully went through a CPE application instead of the UIMA Document Analyzer.

Part II. Deployment Architecture with UIMA-AS

(1) Create an UIMA-AS client

Firstly, I create a UIMA-AS client descriptor for the UIMA-AS service, which is Stanford CoreNLP service.

Secondly, in order to use Stanford CoreNLP service, I add the cleartyk type system to my own type system descriptor by name.

Thirdly, I modify my analysis engine by including the Name Entity annotations from Stanford CorNLP service and use them to improve my answer scoring component.

As my previous analysis engine did not use Stanford CoreNLP package, my new pipeline is a little bit slower than before.
Before use UIMA-AS service: 0.249s
After use UIMA-AS service: 1.515s

In these two data sets, the precisions are the same as before. However, I believe in some situation it should have some improvement.

(2) Deploying my own UIMA-AS service

Firstly, I create a deployment descriptor for my analysis engine.

Secondly, I start the broker locally and put the service on the localhost: 61616.

Thirdly, I create a client a descriptor for my service in a similar way of (1).

Fourthly, I compose all the parts together and create a CPE descriptor in a similar way of Part I.

Fifthly, before running my service with UIMA-AS command line tools, I copy the maven dependency and add them to environment variable UIMA-CLASSPATH.