Programming Lab III, WS 2016/2017

Handout 3

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2016-11-15

Third task – Writing a failsafe FASTA CollectionReader, perform a unit test

Has to be completed finally on 2016-11-22, 11am.

The next task will be to improve the already developed CollectionReader and test its functionality. The improved reader should only process correct FASTA files and discard malformed ones.

Here's the list of topics you have to complete:

- Use your already developed CollectionReader (or create a new one; but bear in mind that it's also part of the course to reuse code that already exists). The CollectionReader should check the input file:
  - If the file is a correct FASTA file – copy its contents to the document view: `AbstractDeployer.VIEW_DOCUMENT`.
  - If the file is in the wrong format the CollectionReader should throw an UIMA **Exception** (there are different UIMA exceptions - choose an appropriate one, cf. UIMA tutorial). Hint: use the functionality of *BioJava* to test for correct FASTA format.
- Now write your first unit test. In order to test your code use the framework **JUnit** (http://www.junit.org) – it is tightly integrated into Eclipse and helps you to perform large collections of unit tests and writes nice reports:
  - Implement a JUnit test which tests your CollectionReader – have a look into *src/test/java*, there you will find already some example code. The test should cover the functionality of the first part of this task. Hint: think about a *positive* and a *negative* test case.
  - Generate test files corresponding to your test cases and place them in *src/test/resources* (to be committed into the svn).
  - Run the test using the Eclipse plugin for JUnit (run as → Junit test), switch to the *JUnit view* and make a screenshot of the successful test run – to be committed in the svn in src/test/resources.

Good luck and have fun!