

Lab 1 — Flexing and Lexing

September 2, 2015

1 Objective

To gain experience developing scanners with Flex (the counterpart to Bison).

2 Deliverable

1. Modify the given `xml.lex` file to produce a scanner that checks a given XML file syntax problems. Errors to catch are:
 - Element mismatch: i.e. `<a>`
 - Non-closed elements `<a><<EOF>>`
 - XML syntax errors: ``, `<a><b<<EOF>>`
 - Element and attribute names not conforming to the following regex:
`[a-zA-Z][a-zA-Z0-9:._]*`
2. Your scanner should support all kinds of XML elements:
 - Elements with children: `<a>`
 - Elements with no children: `<a/>`
 - Elements attributes: ``
 - XML namespaces are excluded.
3. If the input file is syntactically correct, print number of total elements in the file and exit.
4. Tar up all files and submit them.