## 编译原理 - 作业(1):词法分析

**Due:** Mar 16, 2021 at the beginning of the class (14:20)

**Exercise 3.1.2** (P114): Tagged languages like HTML or XML are different from conventional programming languages in that the punctuation (tags) are either very numerous (as in HTML) or a user-defined set (as in XML). Further, tags can often have parameters. Suggest how to divide the following HTML document:

```
Here is a photo of <B>my house</B>:
<P><IMG SRC = "house.gif"><BR>
See <A HREF = "morePix.html">More Pictures</A> if you liked that one.<P>
```

into appropriate lexemes. Which lexemes should get associated lexical values, and what should those values be?

Exercise 3.3.5 (P125): Write regular definitions for the following languages:

- **b).** All strings of lowercase letters in which the letters are in ascending lexicographic order (词 典递增序排列).
- **c).** Comments, consisting of a string surrounded by /\* and \*/, without an intervening \*/, unless it is inside double-quotes (").
- h). All strings of a's and b's that do not contain the substring abb.

**Exercise 3.7.3** (P166): Convert the following regular expressions to DFAs:

**d).** (a|b)\*abb(a|b)\*