

# Exercise 7 (April 9)

- ▶ Solve the following problems by programming and **Send your programs with testing results to [program06@yeah.net](mailto:program06@yeah.net)** before (including) April 15.

**5.1.26** *Challenging REs.* Construct an RE that specifies each of the following languages of binary strings over the alphabet  $\{0, 1\}$ .

- All binary strings except 11 or 111
- Binary strings with 1 in every odd-number bit position
- Binary strings with at least two 0s and at most one 1
- Binary strings with no two consecutive 1s

**5.1.33** *Web crawling.* Modify Harvester program to develop a program that prints all web pages that can be accessed from the web page given as a command-line argument.

**5.1.34** *One-level REs.* Construct a Java RE that specifies the set of strings that are legal REs over the binary alphabet, but with no occurrence of nested parentheses. For example,  $(a.*b)^* | (b.*a)^*$  is in this language, but  $(b(a|b)b)^*$  is not.