REGEX

Since I also teach a web programming course I probably make more use of RE than the colleagues in my department. Therefore, I tend to use jFLAP with regular languages to get students to flip between thinking in terms of FSAs and working with productions. My normal goal is to have students work with RE in a popular language, like Java, Javascript, PHP, etc.

I'll have the students construct regular productions to validate email addresses that satisfy the following format:
- The string must contain exactly one "@" symbol.
- There must be zero or one "." in the string before the "@".
- There must be one or more "." after the "@".
- The "."s and the "@" symbols must be separated by alphanumeric pieces of length greater than zero.
- Each alphanumeric piece must contains at least one alphabetic character.
- The last alphanumeric string must be all alphabetic and must contain 2, 3, or 4 characters.

FOLLOWUP

Construct the RE.

POSTSCRIPT (9/'14)

I just had a student who took my theory course two years ago. He told me that he always remembered what I said about the Chomsky Hierarchy in general and Regular Expressions in particular. Namely, don't avoid language theory concepts, learn how to use them. He spent the summer working for a startup firm that was "scraping" information from web pages. He decided to apply regular expressions in performing the task and constructed a web scraping tool for the firm. As a result, the firm formed a new software team that focused on how they could improve the company's web scraping resources by focusing on making better use of regular expressions to perform the task.