

EECS665

Compiler Construction

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Lecture: LEEP2 G415
MWF 3:00-3:50

Lab: Eaton 1005B

ANOUNCEMENTS

LAB

SCHEDULE

MATERIALS

ASSIGNMENTS

Homework 1

Due on ~~8/29 @ 3:00 PM~~ **8/31** (in class, to Drew, or at Engineering front office)

Not accepted late

Question 1

Draw a **Deterministic Finite Automaton (DFA)** that accepts the language of usernames defined as follows:

A username

- can include letters, digits, underscores (`_`), and periods (`.`)
- must start with a letter or underscore
- must include at least one letter or digit
- cannot have two (or more) periods in a row
- Label the edges of your FSM with the characters `_` and `.` (or use the word dot) and the

words letter and digit.

Question 2

Write a **regular expression** for the language of identifiers defined as follows:

An identifier

- can include dashes (-) and letters
- cannot have more than two dashes in a row
- must include at least one letter (i.e., one or two dashes alone are not legal identifiers)
- You may use letter to mean any letter.