September 16

Jlex & Friends

Drew Davidson – CS 536

Admin: Homework / Projects

- Homework 1 is due right now!
  - Solution will be available on Learn@UW
- Program 1 now due tonight!
- Homework 2 assigned
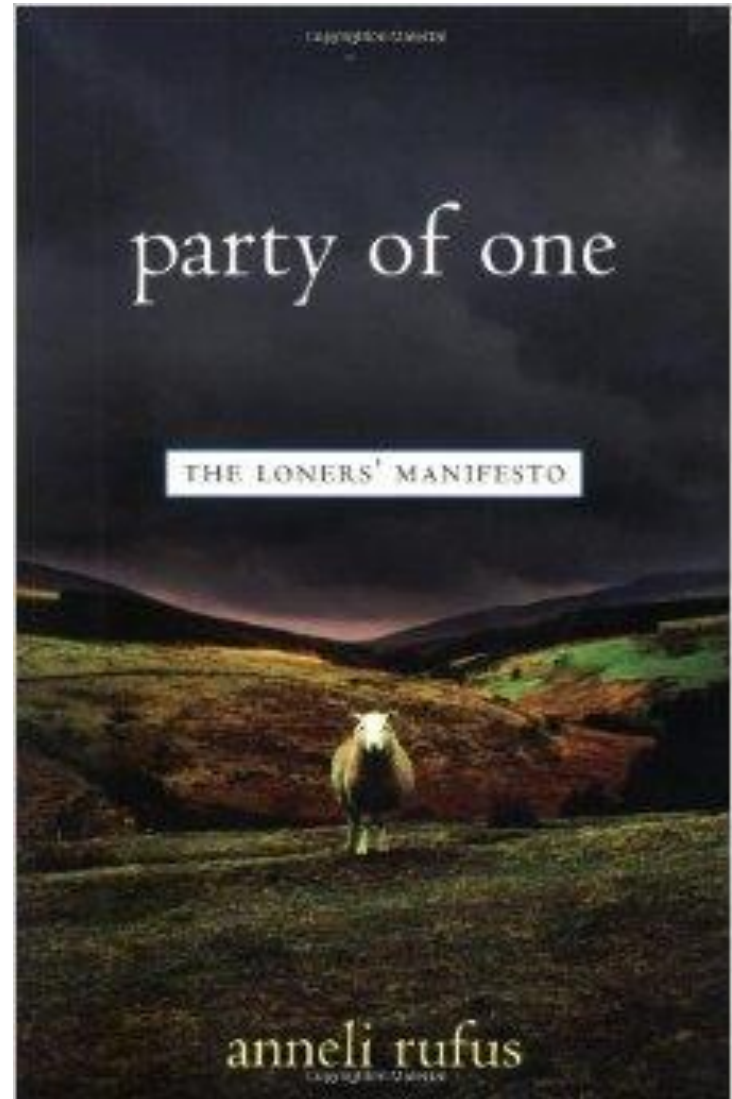- Project 2 up tonight

Admin: Presentation Style Poll

- 2/3 of the vote for slides

- Surprisingly even results
  - My thoughts in Piazza
  - Interested in feedback

Admin: Office Hours are Lonely

- So far nobody has shown up for my office hours
- Come by for tips n' tricks
- So far the projects have been fairly easy
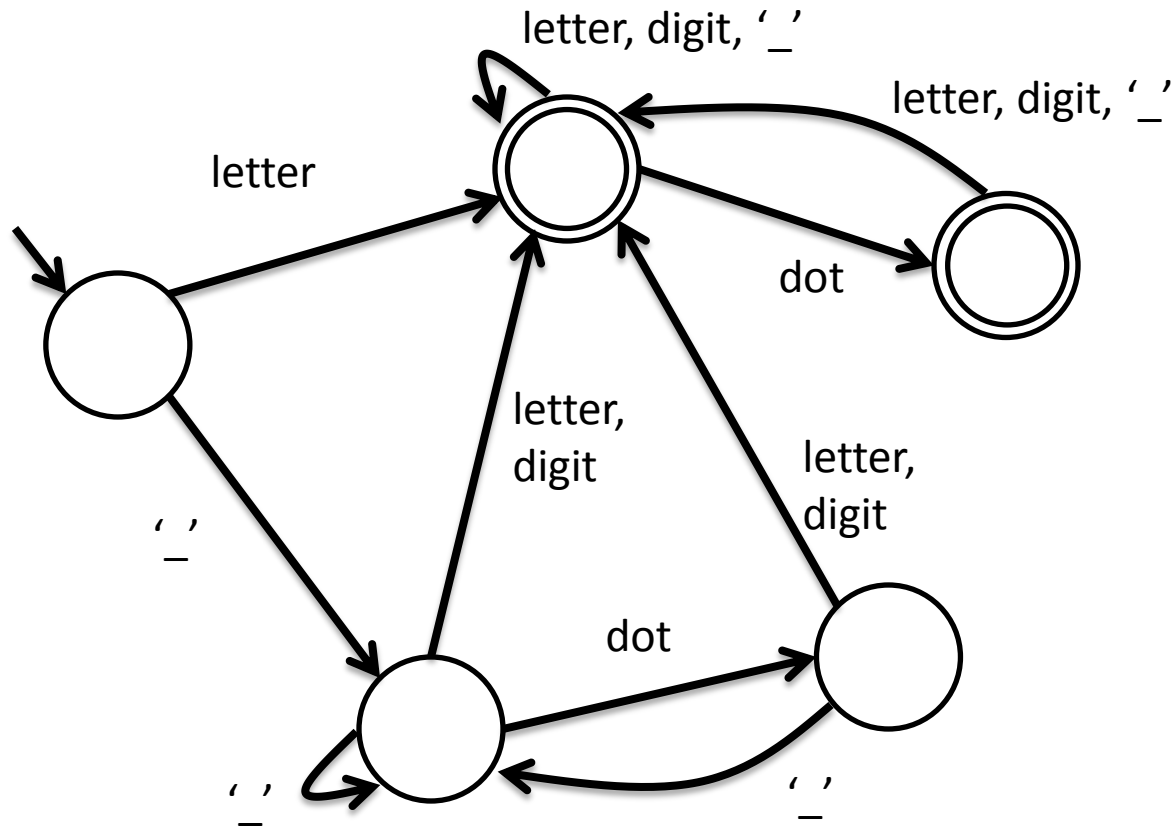 - Extra content
  - Reschedule?

party of one

THE LONERS' MANIFESTO

anneli rufus

Homework 1: Q1 DFA for usernames

- 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

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Homework 1: Q2

Regex for Identifiers

- Can include dashes (-) and letters

- Cannot have more than two dashes in a row

- Must include at least 1 letter

Homework 1: Q2

Regex for Identifiers

- Can include dashes (-) and letters

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$$((`-`|`-``-`)?.letter)+(`-`|`-``-`)?$$

Admin: Roadmap

- Last Time
  - RegEx to NFA
  - Scanners from RegEx sets
  - JLex
- Today
  - Finish JLex / Demo
  - Tool tutorials

JLex Feature Review

- User code
  - Mostly unused, we'll link other files
- Directives
  - Used to configure the scanner
- Regex Rules
  - The actual scanner itself

JLex Summation Example

Example JLex

```
%%
WHITESPACE = [\n\t\040]
DIGIT = [0-9]

%state negative

%function next_token
%type IntLit
%line
%%
{WHITESPACE}* { }
<negative>{DIGIT}+ { yybegin(YYINITIAL);
                     return new IntLit("-" +yytext());}
{DIGIT}+          { return new IntLit(yytext()); }
<negative>"NEG"   { yybegin(YYINITIAL);
                     return new IntLit("0"); }
"NEG"             { yybegin(negative); }
.                 { System.out.println("OTHER"); }
```