CPSC 322
Introduction to Artificial Intelligence

September 27, 2004

Things to look for

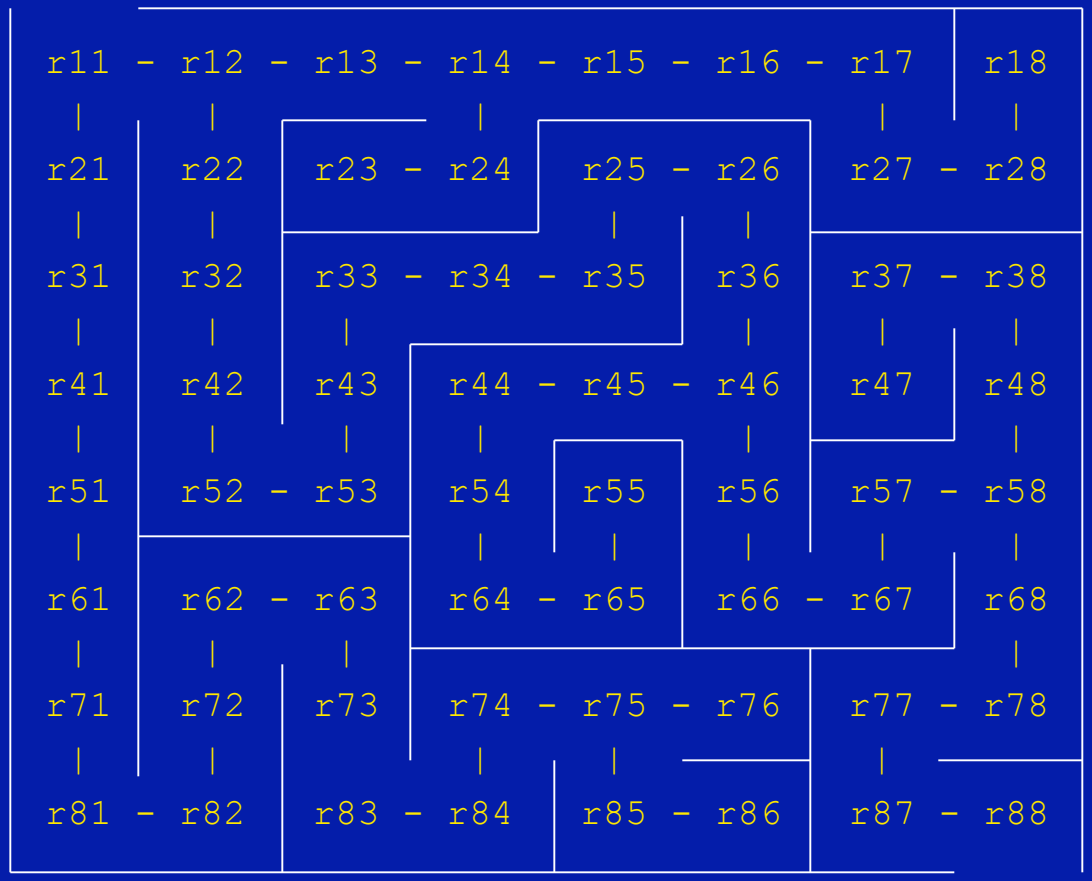
Homework assignment tonight

Midterm exam one week from today

The Awesome Power of Recursion

or how getting the representation right makes everything else so easy....

The Maze


r11 - r12 - r13 - r14 - r15 - r16 - r17 r18
r21 r22 r23 - r24 r25 - r26 r27 - r28
r31 r32 r33 - r34 - r35 r36 r37 - r38
r41 r42 r43 r44 - r45 - r46 r47 r48
r51 r52 - r53 r54 r55 r56 r57 - r58
r61 r62 - r63 r64 - r65 r66 - r67 r68
r71 r72 r73 r74 - r75 - r76 r77 - r78
r81 - r82 r83 - r84 r85 - r86 r87 - r88

It’s time for a CILOG break!

cilog: load ‘maze.ci’.

compare
  tell path(X,Y) <- nowall(X,Z) & path(Z,Y).
  tell path(X,Y) <- nowall(X,Y).

  to

  tell path(X,Y) <- path(X,Z) & path(Z,Y).
  tell path(X,Y) <- nowall(X,Y).

The List

An ordered sequence of elements: [larry, moe, curly]

Consists of two parts: head and rest or [larry | [moe, curly]]
head and tail
equivalent to: car and cdr

the “root” of all lists is the empty list []
for example [larry | [moe | [curly | []]]]

Equivalent forms of lists

Cons pair syntax	Element syntax
[a | [ ]]	[a]
[a | [b | [ ]]]	[a,b]
[a | [b | [c | [ ]]]]	[a,b,c]
[a | X]	[a | X]
[a | [b | X]]	[a,b | X]

No more slides today

The rest of the class was done on the computer and on the board...