

# CSC592CM – Programming Assignment #1

Due 10/19/06

Version 2.0

Write a LISP/SCHEME program that implements a semantic network. See lecture notes for hints on basic structures and algorithms. Create your own semantic network with at least 20 nodes and 30 links, including a kind hierarchy.

1. Using DO loops, implement spreading activation.
2. Write a function that can collect kinds. E.g. a spaniel is a kind of dog which is a kind of animal, so (find-kinds 'spaniel) --> (DOG ANIMAL).
3. Write a function that answers queries. (query thing property) will initially just check for the value of the property of the thing using (get thing property), but if no answer is found it will climb the hierarchy to see if an answer is available higher up.

Note: A link to a list of 2 elements is only one link.

Note: Your spreading activation function need only spread from one concept to all the concepts linked to it. (Optional: write a function that keeps on spreading activation.)

Hand in a printout of your code and some test runs that show that your program works.

**Students are encouraged to discuss design and implementation strategies, but each student has to submit their own implementation, the actual implementation and testing has to be your own.**