1. Solve the following puzzle (believed to be originally proposed by Einstein) using description logics/Racer.

Each of the five houses is painted a different color, and their inhabitants are of different national extractions, own different pets, drink different beverages and smoke different brands of American cigarettes. The questions you need to solve are:

- Who drinks water?
- Who owns the zebra?

State two description logic queries, one for each to-be-solved query, and make sure that Racer returns the correct answer. The puzzle is taken from http://en.wikipedia.org/wiki/Zebra_Puzzle. Although the page contains a (common-sense) solution to the puzzle, please try to 1) solve it yourself first, then 2) run it in Racer, and then only 3) check the results on the wikipedia page!

The puzzle consists of 15 hints (continued on the next page!)

(a) There are five houses.
(b) The Englishman lives in the red house.
(c) The Spaniard owns the dog.
(d) Coffee is drunk in the green house.
(e) The Ukrainian drinks tea.
(f) The green house is immediately to the right of the ivory house.
(g) The Old Gold smoker owns snails.
(h) Kools are smoked in the yellow house.
(i) Milk is drunk in the middle house.
(j) The Norwegian lives in the first house.
(k) The man who smokes Chesterfields lives in the house next to the man with the fox.
(l) Kools are smoked in the house next to a house where the horse is kept.
(m) The Lucky Strike smoker drinks orange juice.
(n) The Japanese smokes Parliaments.
(o) The Norwegian lives next to the blue house.