CS181: Programming Languages Vladimir Vacic, Christos Koufogiannakis University of California, Riverside

Lab Assignment 4

1. Consider the following program, which is intended to define the third argument to be the maximum value of the first two numeric arguments:

$$\max(X,Y,X) :- X >= Y, !.$$

 $\max(X,Y,Y).$

- a) Find a question to show that the above rule is incorrect
- b) Explain the cause of the error and suggest the correction
- 2. Write a Prolog rule to reverse a list L into a list L1, using an intermediary list R that is initially empty.
- 3. Implement a rule that computes the factorial on N using an accumulator.