% Check if all conditions of a rule are true

conditions\_true([]).

conditions\_true([Cond | Rest]) :-

fact(Cond),

conditions\_true(Rest).

% Apply one rule if possible

apply\_rule :-

rule(Conclusion, Conditions),

\+ fact(Conclusion), % The conclusion hasn't been inferred yet

conditions\_true(Conditions), % All conditions must be true

assertz(fact(Conclusion)), % Add the new fact

format('Inferred: ~w~n', [Conclusion]),

fail. % Force backtracking to apply all rules

apply\_rule. % Succeeds when no more rules apply

% Forward chaining loop

forward\_chain :-

apply\_rule.

Output

Inferred: is\_bird

Inferred: can\_fly

true.