**Exp 29: Write a Prolog Program for forward Chaining. Incorporate required queries.**

**Input:**

% Forward Chaining Example in Prolog

% Facts

fact(sunny).

fact(weekend).

% Rules (if-then)

rule(go\_beach, [sunny, weekend]).

rule(go\_movies, [raining, weekend]).

rule(do\_homework, [weekday]).

% Forward chaining: check if all conditions are true

forward\_chain :-

rule(Action, Conditions),

all\_true(Conditions),

format('You should: ~w~n', [Action]),

fail. % force backtracking to find all matches

forward\_chain.

% Helper: check if all facts in a list are true

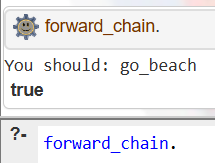
all\_true([]).

all\_true([H|T]) :-

fact(H),

all\_true(T).

**output:**

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