Exp-04 BACKWARD CHAINING SRINIVASAN

231701054

**AIM:**

Implementation of backward Chaining

**CODE:**

rules = {

    "wet": "need\_umbrella",

    "raining": "wet"

}

facts = {"raining"}

def backward\_chaining(goal, rules, facts):

    if goal in facts:

        print(f"Goal '{goal}' is a known fact.")

        return True

    for premise, conclusion in rules.items():

        if conclusion == goal:

            print(f"To prove '{goal}', we need '{premise}'")

            if backward\_chaining(premise, rules, facts):

                facts.add(goal)

                return True

    return False

goal = "need\_umbrella"

result = backward\_chaining(goal, rules, facts)

print("Final Facts:", facts)

print(f"Goal {'achieved' if result else 'not achieved'}: {goal}")

**RESULT:**

To prove 'need\_umbrella', we need 'wet'

To prove 'wet', we need 'raining'

Goal 'raining' is a known fact.

Final Facts: {'need\_umbrella', 'wet', 'raining'}

Goal achieved: need\_umbrella