Forward-Chaining

Aim:

Forward Chaining implementation.

facts = set()

rules = [

    ("It is raining", "The ground is wet"),

    ("The ground is wet", "The grass is slippery")

]

def forward\_chaining(facts, rules):

    inferred = True

    while inferred:

        inferred = False

        for premise, conclusion in rules:

            if premise in facts and conclusion not in facts:

                print(f"Inferring: {conclusion}")

                facts.add(conclusion)

                inferred = True

facts.add("It is raining")

forward\_chaining(facts, rules)

print("\nInferred facts:", facts)

Result:  
 Inferring: The ground is wet

Inferring: The grass is slippery

Inferred facts: {'The grass is slippery', 'The ground is wet', 'It is raining'}