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knowledge\_base = [

(["cough", "fever"], "flu"),

(["sore\_throat", "runny\_nose"], "cold"), (["sore\_throat"], "fever")

]

facts = {"cough", "sore\_throat"} def forward\_chaining():

inferred = True while inferred:

inferred = False

for conditions, conclusion in knowledge\_base:

if all(condition in facts for condition in conditions) and conclusion not in facts: facts.add(conclusion)

inferred = True forward\_chaining()

# Check if flu or cold is inferred if "flu" in facts:

print("The patient is diagnosed with flu.") elif "cold" in facts:

print("The patient is diagnosed with cold.") else:

print("No conclusive diagnosis could be made.")

