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1 #Niranjan.v.2024.ai.ml@rajalalshmi.edu.in  
2 facts = {'a': True, 'b': True, 'c': False}  
3 rules = [('d', ['a', 'b']), ('e', ['b', 'c']), ('f', ['d', 'e'])]  
4  
5 def forward_chaining(facts, rules, goal):  
6     inferred = {k for k, v in facts.items() if v}  
7     while True:  
8         new = {h for h, b in rules if h not in inferred  
9                and all(f in inferred for f in b)}  
10        if not new: break  
11        inferred |= new  
12    return goal in inferred  
13  
14 for g in ['d', 'e', 'f']:  
15     print(f"{g}: {'Achieved' if forward_chaining(facts,  
16            rules, g) else 'Not achieved'}")
```

d: Achieved  
e: Not achieved  
f: Not achieved

[Program finished]