

main.py



Output

Clear

```
1 knowledge_base = [  
2     ([ "cough", "fever"], "flu"),  
3     ([ "sore_throat", "runny_nose"], "cold"),  
4     ([ "sore_throat"], "fever")  
5 ]  
6 facts = { "cough", "sore_throat" }  
7 def forward_chaining():  
8     inferred = True  
9     while inferred:  
10         inferred = False  
11         for conditions, conclusion in knowledge_base:  
12             if all(condition in facts for condition in conditions) and  
13                 conclusion not in facts:  
14                 facts.add(conclusion)  
15                 inferred = True  
16 forward_chaining()  
17 if "flu" in facts:  
18     print("The patient is diagnosed with flu.")  
19 elif "cold" in facts:  
20     print("The patient is diagnosed with cold.")  
21 else:  
22     print("No conclusive diagnosis could be made.")
```

The patient is diagnosed with flu.

== Code Execution Successful ==