

EXP : 6

2 Programs on Decision Making and Knowledge Representation

d. Implementation of Forward Chaining

AIM:

To solve Forward chaining using python code

CODE:

```
facts = {"A"}
rules = {
    "A": "B",
    "B": "C"
}

def forward_chaining(facts, rules):
    inferred = set(facts)
    while True:
        new_fact = False
        for condition, result in rules.items():
            if condition in inferred and result not in inferred:
                inferred.add(result)
                print(f'Inferred: {result}')
                new_fact = True
        if not new_fact:
            break
    return inferred

# Run it
all_facts = forward_chaining(facts, rules)
print("Final facts:", all_facts)
```

OUTPUT:

Inferred: B

Inferred: C

Final facts: {'A', 'B', 'C'}

RESULT:

Thus the program is compiled and run successfully.