**Aim:**

To implement the **Forward Chaining Algorithm** in Python.

**CODE:**

**def forward\_chaining(facts, rules):**

**inferred = set()**

**new\_facts\_added = True**

**while new\_facts\_added:**

**new\_facts\_added = False**

**for rule in rules:**

**conditions, conclusion = rule**

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

**facts.add(conclusion)**

**inferred.add(conclusion)**

**new\_facts\_added = True**

**print(f"Inferred: {conclusion}")**

**return inferred**

**# Example usage:**

**facts = {"A", "B"}**

**rules = [**

**(["A", "B"], "C"),**

**(["C"], "D"),**

**(["D", "E"], "F"),**

**(["B"], "E")**

**]**

**result = forward\_chaining(set(facts), rules)**

**print("\nFinal Inferred Facts:", result)**

**RESULT:**

**The Forward chaining program was successfully implemented.**