Forward-Chaining

Aim:

Forward Chaining implementation.

```python
facts = set()
rules = [
    ("It is raining", "The ground is wet"),
    ("The ground is wet", "The grass is slippery")
]


def forward_chaining(facts, rules):
    inferred = True

    while inferred:
        inferred = False

        for premise, conclusion in rules:
            if premise in facts and conclusion not in facts:
                print(f"Inferring: {conclusion}")
                facts.add(conclusion)
                inferred = True


facts.add("It is raining")


forward_chaining(facts, rules)
```

```
print("\nInferred facts:", facts)
```

Result:

Inferring: The ground is wet

Inferring: The grass is slippery

Inferred facts: {'The grass is slippery', 'The ground is wet', 'It is raining'}