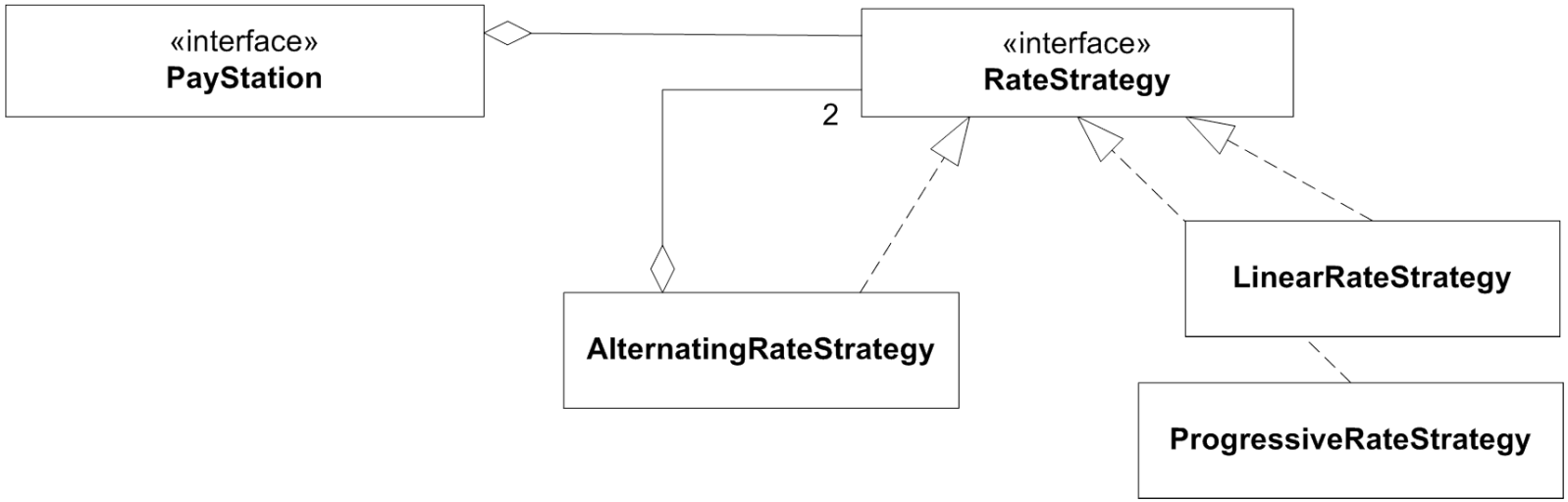
Patterns are Roles

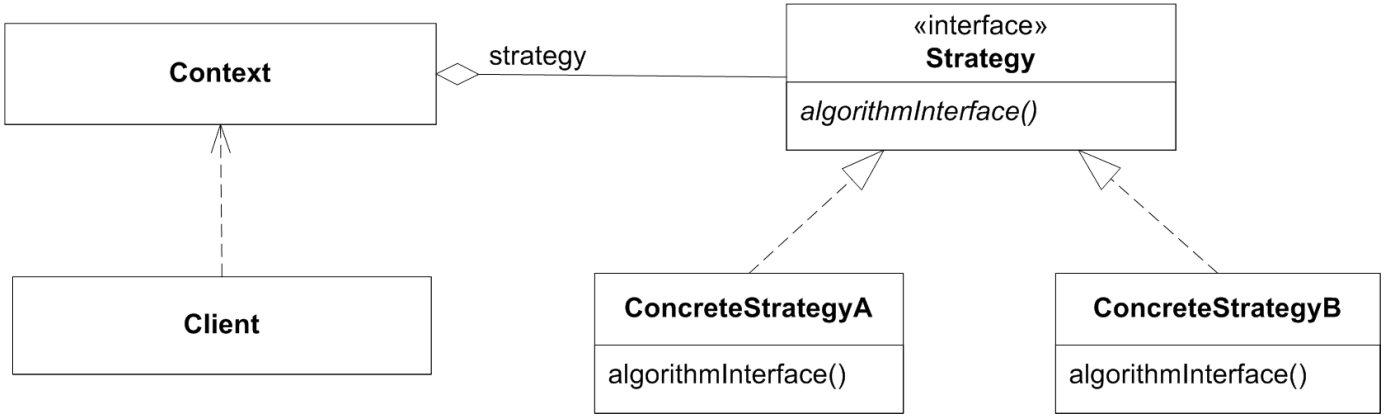
What patterns are and what not…

Let us compare this…

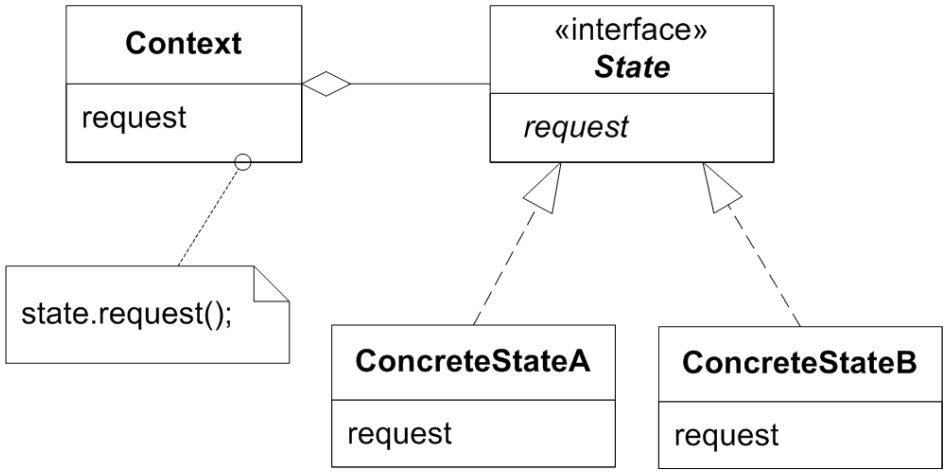


… with these two!

If these diagrams are correct, then something is wrong

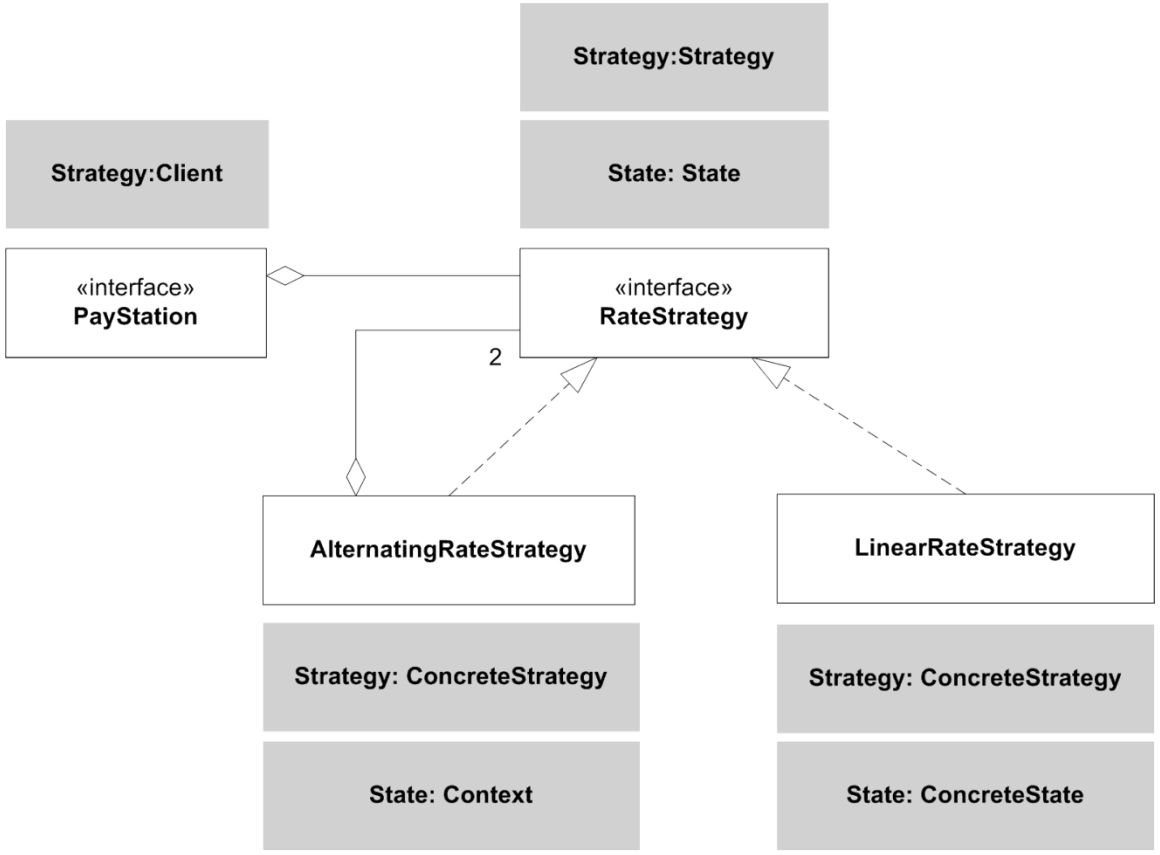


One interface named State, one named Strategy...



But…

UML diagrams cannot express **roles** – and patterns express roles, **not** classes!



Revisiting

Team leader

rate calculation request

2.delegate to expert

1. check clock

Rate Policy Expert
Linear

Rate Policy Expert
Progressive

The Team Leader

The AlternatingRateStrategy instance

- calculates rates = **Concrete Strategy**

Rate Policy Expert
Alternating rates

- changes behaviour depending on = **Context**

Context for state changes

The same object plays roles in two patterns!

Summary

The essence of design patterns is at a higher level of abstraction than what you may see in e.g. UML class diagrams.

Definition: Design Pattern (Role view)

A design pattern is defined by a set of roles, each role having a specific set of responsibilities, and by a well defined protocol between these roles.

- You are *not* restricted by naming, method naming, classes - *only* by the roles and the protocol !
- often a single abstraction plays multiple roles !