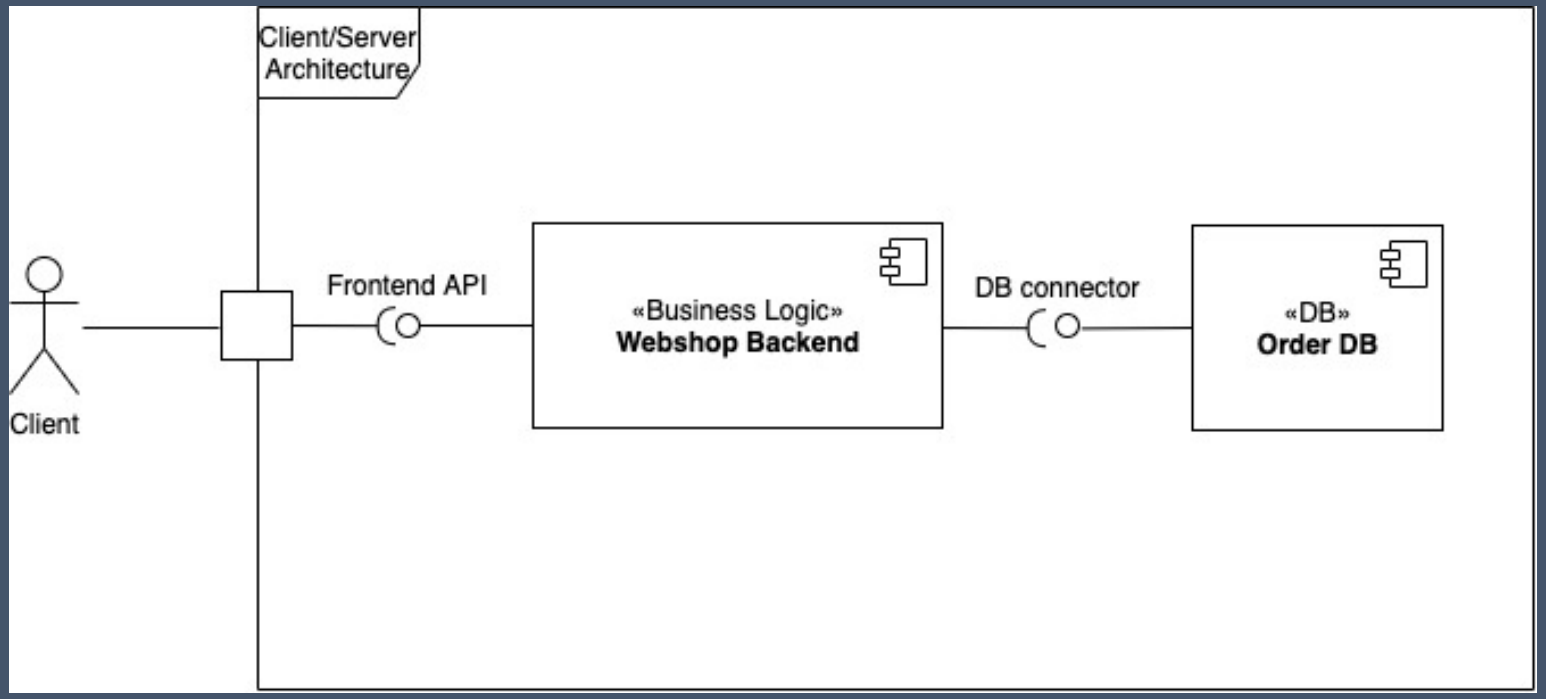
Architecture diagrams

- We normally use UML component diagrams to define the architecture of a distributed system

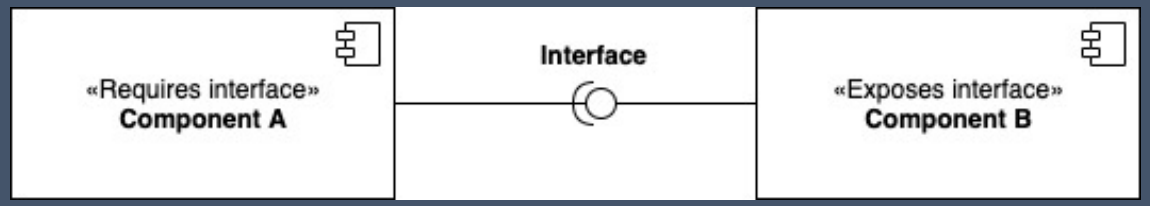


Component diagrams

The following elements are important

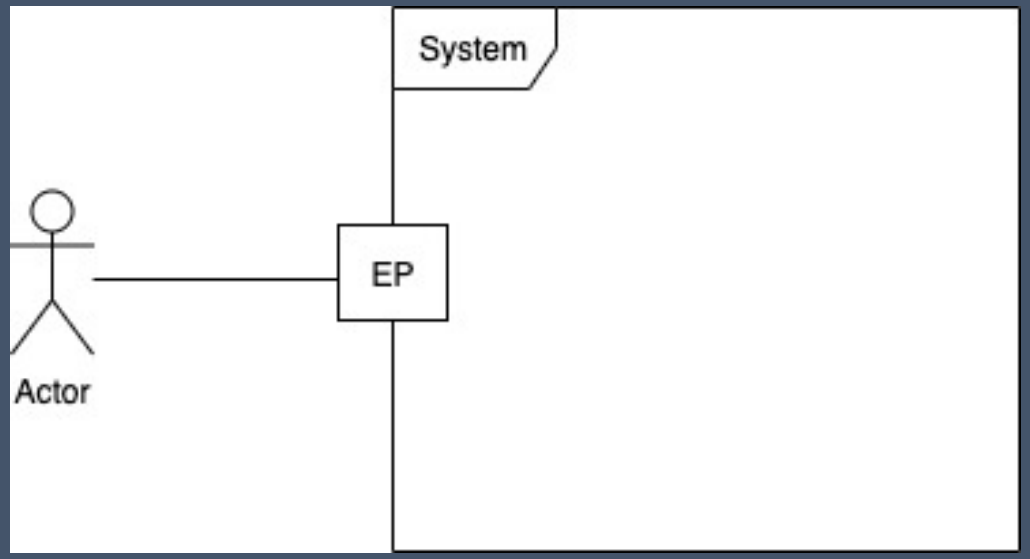
- Components

- Represents a module/service/component of a system
- Includes computing and/or data components
- Usually exposes an interface that other components require



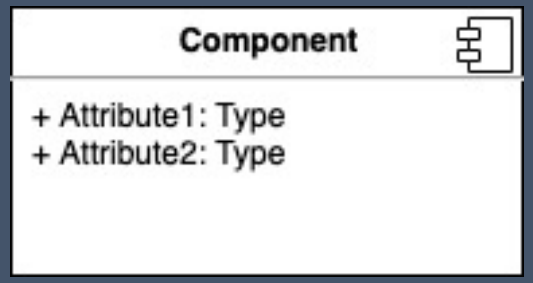
Component diagrams

- Define system boundaries using frames, entry points, and actors

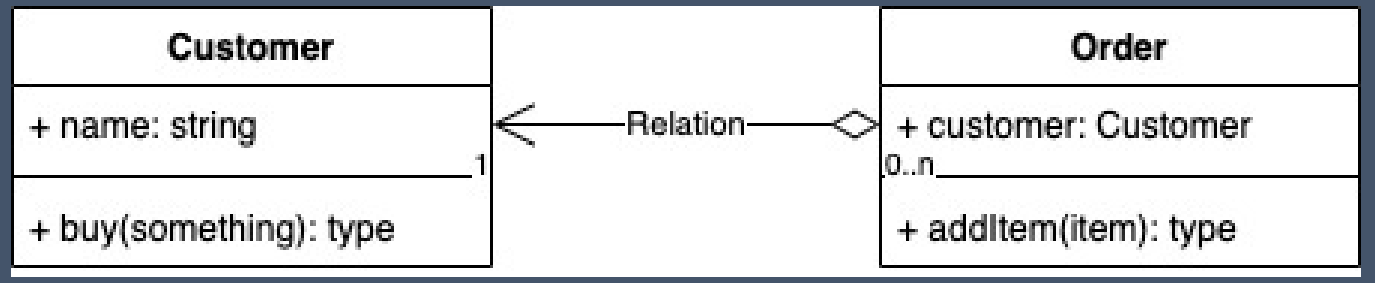


Component diagrams

- Components can be defined further



- They can also be specified in more detail, if needed



Assignment 1

We want to design a financial trading system with following requirements:

- Central user login and authorization management.
- Central master data repository (customer database).
- Service for sending notifications (push notifications and/or e-mail) to end-users.
- Service for computation-intensive calculations (time-series simulations).
- Service for storing the inputs and outputs of the calculations.
- Web user interface.

Assignment 1

The system is used by bank employees (financial consultants and administrators).

Draw a *component diagram* which satisfies all of the above requirements and contains:

- The individual components.
- The data flows between the different components.
- The actors interacting with the system.