Learning UML

O'Reilly

Exercises – Internal Structure of Components

In the *Component View* add a new component diagram called *EventQueue*.

Add the component *EventQueue* to the diagram as a link. Enable the Structure Compartment if necessary.

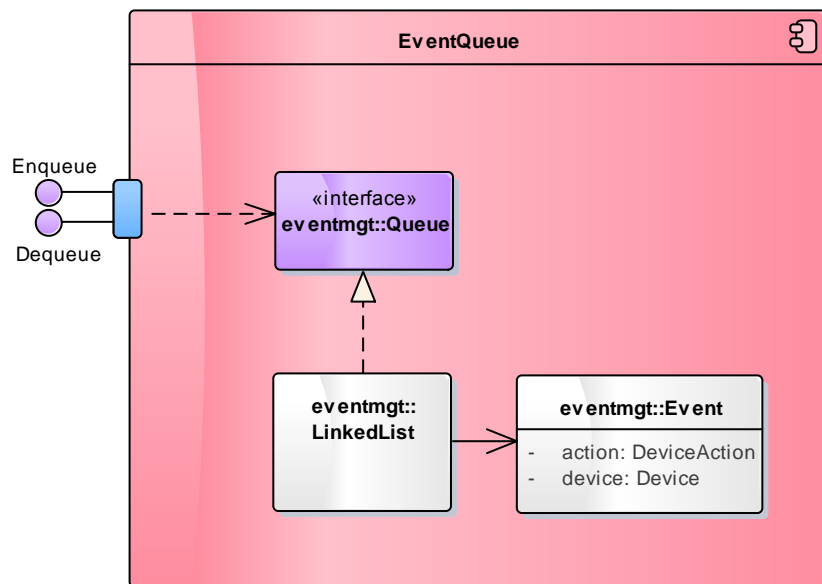Add a port to the component, but do not give it a name.

Add two provided interfaces to the port called *Enqueue* and *Dequeue*. (In EA, you do this with the Expose Interface item in the toolbox, and click on the port rather than the component when you add the interfaces into the diagram.)

In the *eventmgt* diagram, add the class *LinkedList* and the interface *Queue*. Create a realization relationship between *LinkedList* and *Queue*. Add a directed association between *LinkedList* and *Event*.

Add the interface *Queue* and the classes *LinkedList* and *Event* to the component diagram called *EventQueue* as links and position them inside the component.

Add a dependency from the port to *Queue*.
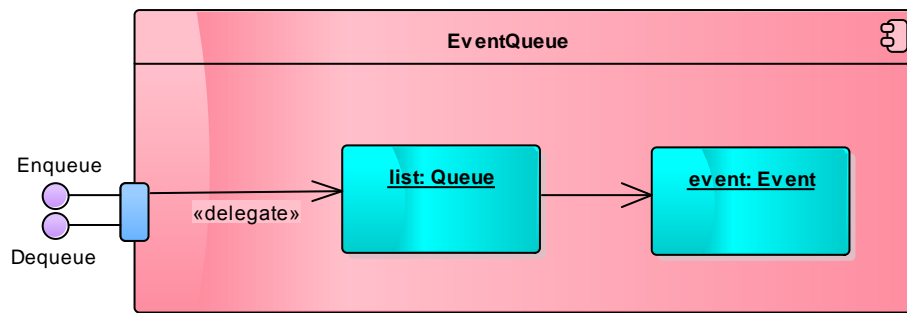
Your diagram should look something like this.

Now create a component diagram called *EventDelegation*.

Add the component *EventQueue* to the diagram as a link and enable the display of the port and the two interfaces. Enable the Structure Compartment if necessary.

Add the interface *Queue* and the class *Event* to the component diagram called *EventQueue* as instances called *list* and *event* respectively and position them inside the component.

Add a directed link from *list* to *event*, and a delegation relationship from the port to *list*.

Your diagram should look something like this.

Note that although *list* is an instance of *LinkedLIst*, it is being used as an instance of the interface *Queue*, so *Queue* has been used as the classifier here.