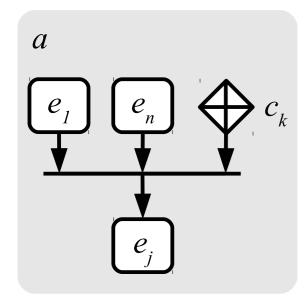
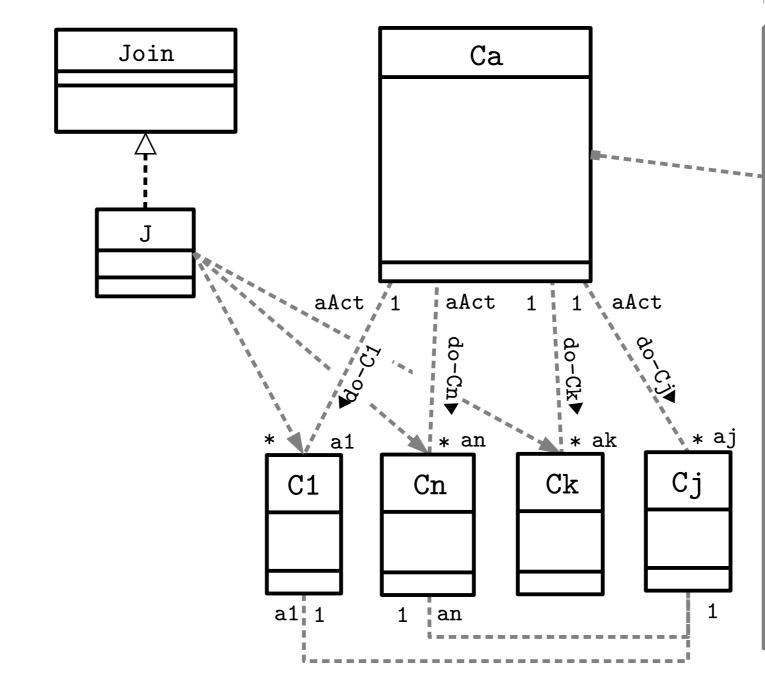
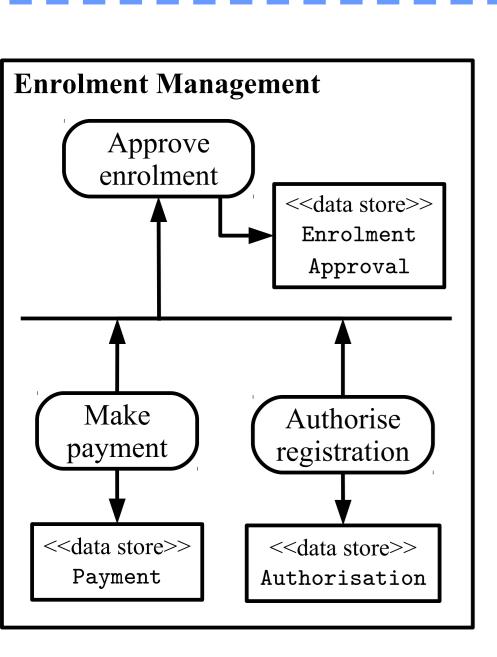
joined pattern (if  $c_k$  is present then  $n \ge 1$ else  $n \ge 2$ )





```
AGraph { nodes=[
   ANode { refCls=C1,serviceCls=DataController
   outClses=[J]
  actSeq=[
     MAct{actName=newObject,pstStates=[Created]} ]
  init=true}
   ANode { refCls=Cn,serviceCls=DataController
   outClses=[J]
  actSeq=[
     MAct{actName=newObject,pstStates=[Created]} ]
  init=true}
   ANode { refCls=Ck,nodeType=k,outClses=[J],init=true}
   ANode { refCls=J,nodeType=Join,outClses=[Cj]}
   ANode { refCls=Cj,serviceCls=DataController
  actSeq=[
     MAct{actName=newObject,pstStates=[NewObject]},
     MAct{actName=setDataFieldValues
       fieldNames=["a1","an"], pstStates=[Created]} ]}
]}
```



```
Join
                    EnrolmentProcessing
                     student: Student
 JPayment
                                  enrolmentProc
               enrolmentProc
Authorise
                       processes
                                      approves
                                              enrol
                                           * Approvals
                            authorisations
payments
                                      Enrolment
    Payment
                  Authorisation
                                       Approval
          1 authorisation 1
  payment!
```

```
AGraph { nodes=[
   ANode { refCls=Payment, serviceCls=DataController
   outClses=[JPaymentAuthorise]
   actSeq=[
     MAct{actName=newObject,pstStates=[Created]} ]
   init=true}
   ANode { refCls=Authorisation
   serviceCls=DataController,outClses=[JPaymentAuthorise]
   actSeq=[
     MAct{actName=newObject,pstStates=[Created]} ]
   init=true}
   ANode { refCls=JPaymentAuthorise,nodeType=Join
     outClses=[EnrolmentApproval]}
   ANode { refCls=EnrolmentApproval
     serviceCls=DataController
   actSeq=[
     MAct{actName=newObject,pstStates=[NewObject]},
     MAct{actName=setDataFieldValues
        fieldNames=["payment","authorisation","student",
           "approved"], pstStates=[Created]} ]}
]}
```