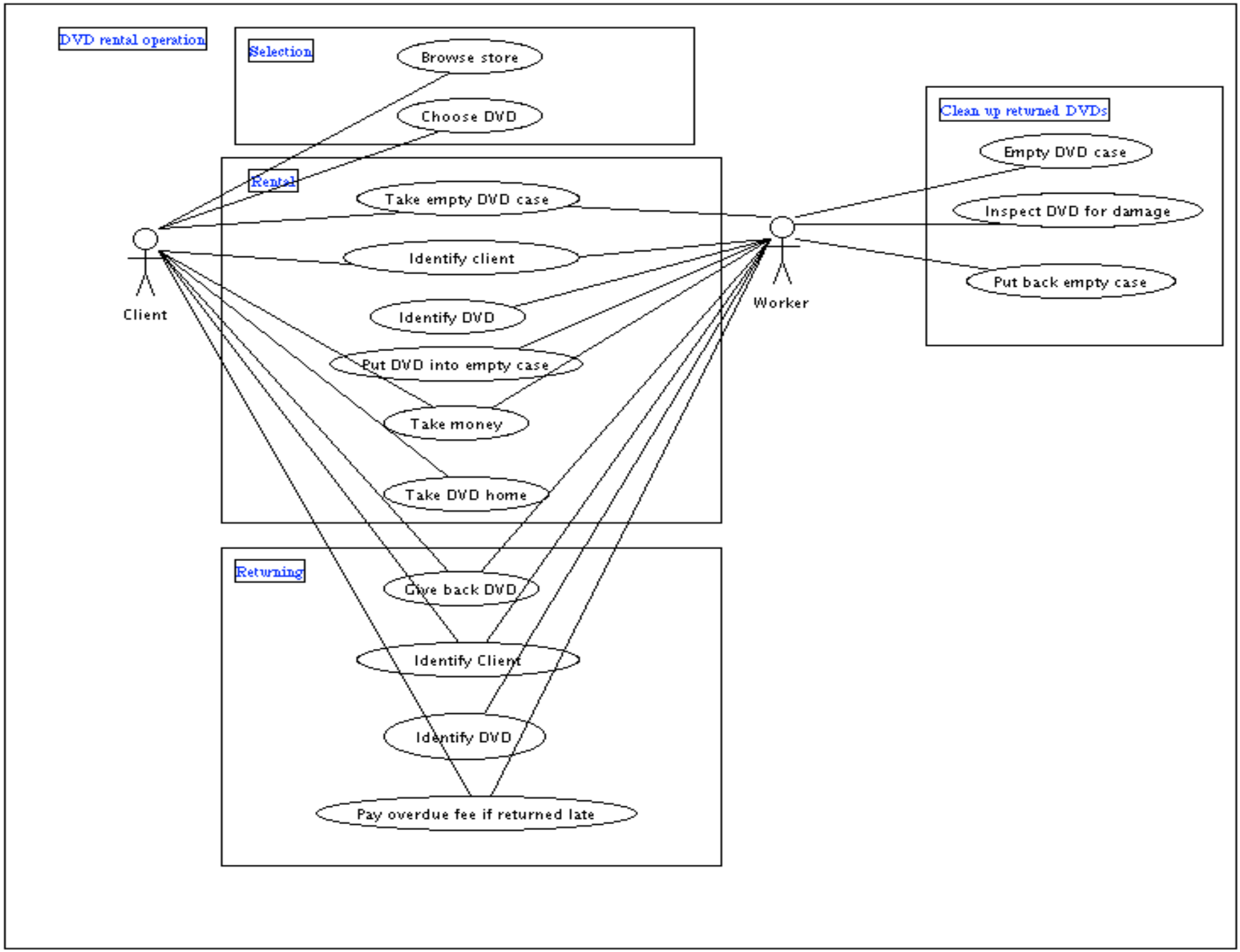
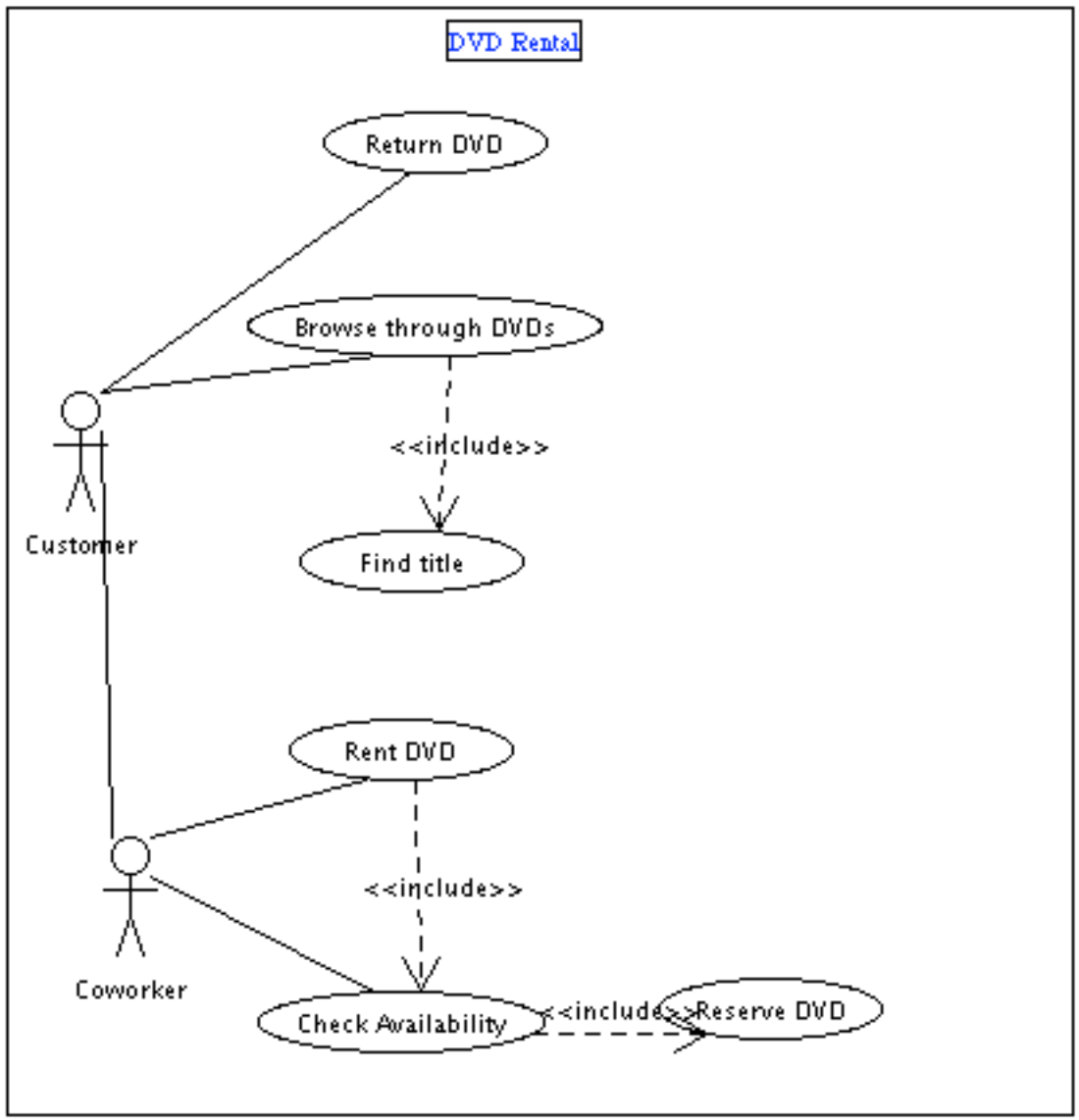
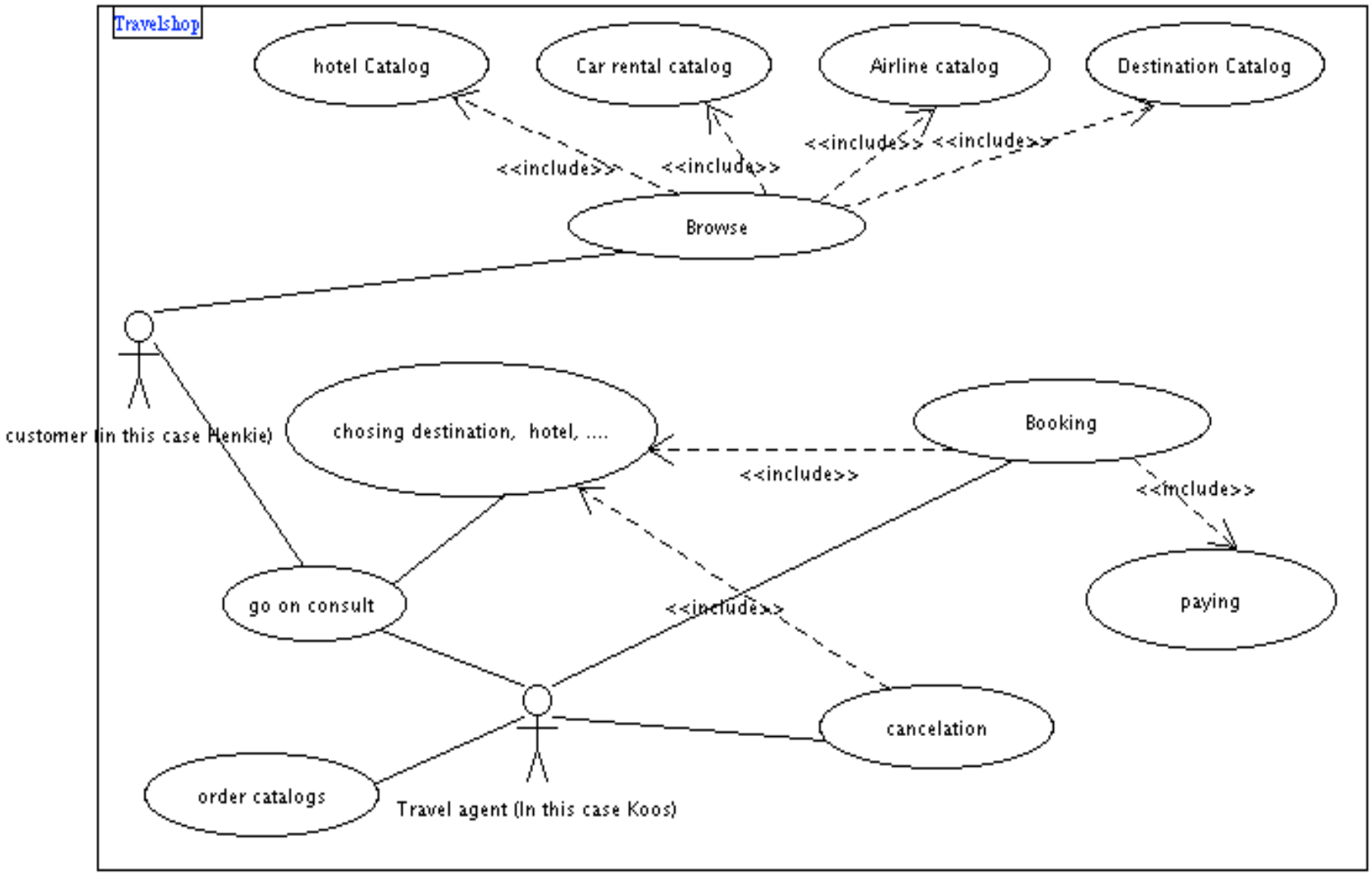
Afternoon Sessions

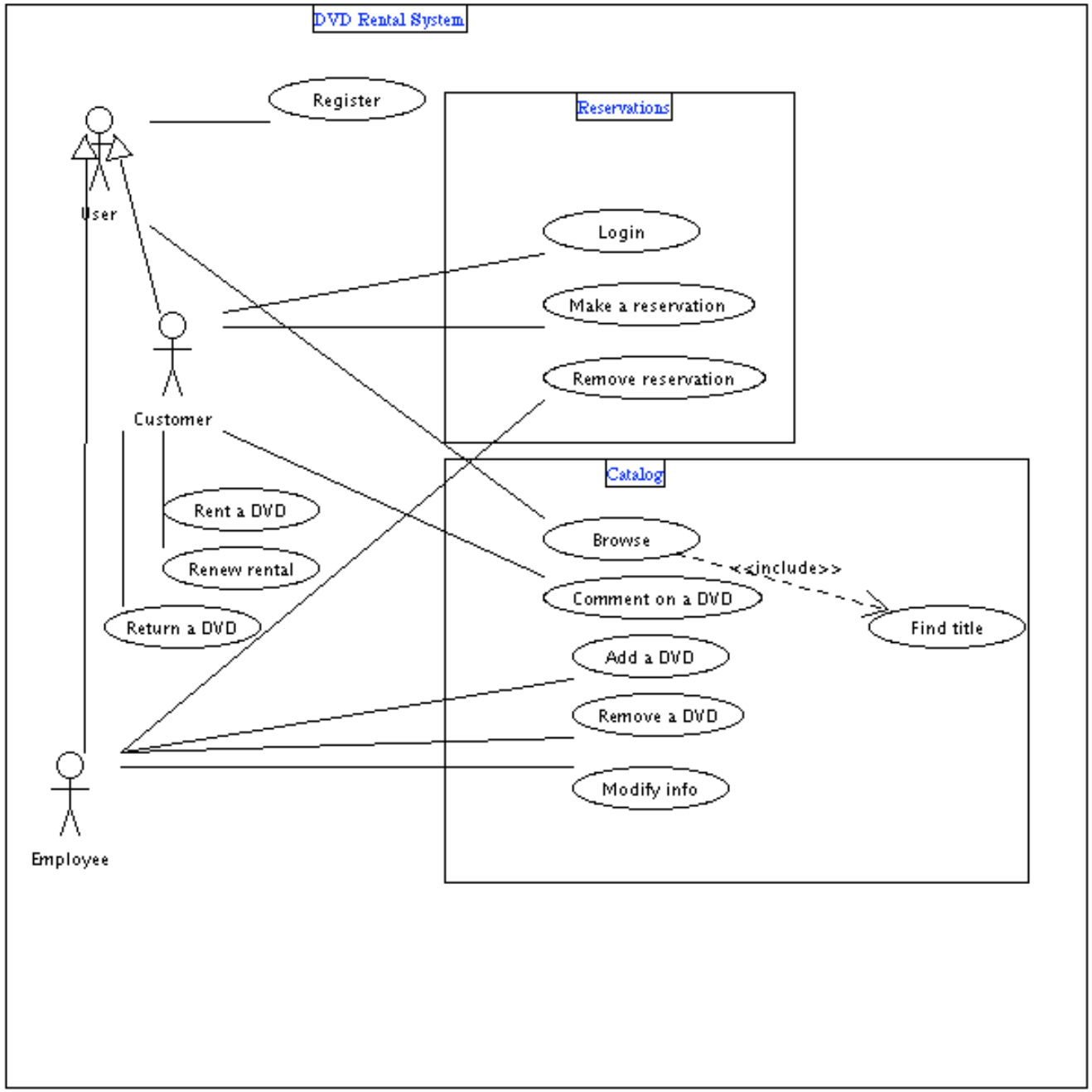
Session 1 (Oct 18) : Modeling Use Case Diagram
Session 2 (Oct 25) : Documenting Use Cases & Creating Activity Diagrams
Session 3 (Nov 1) : Modeling Classes
Session 4 (Nov 8) : Modeling Sequence Diagrams: Use case realization
Session 5 (Nov 15) : Case study (tentative)
Session x (Nov 22) : Tentative
Session 6 (Nov 29) : Evaluation (tentative)

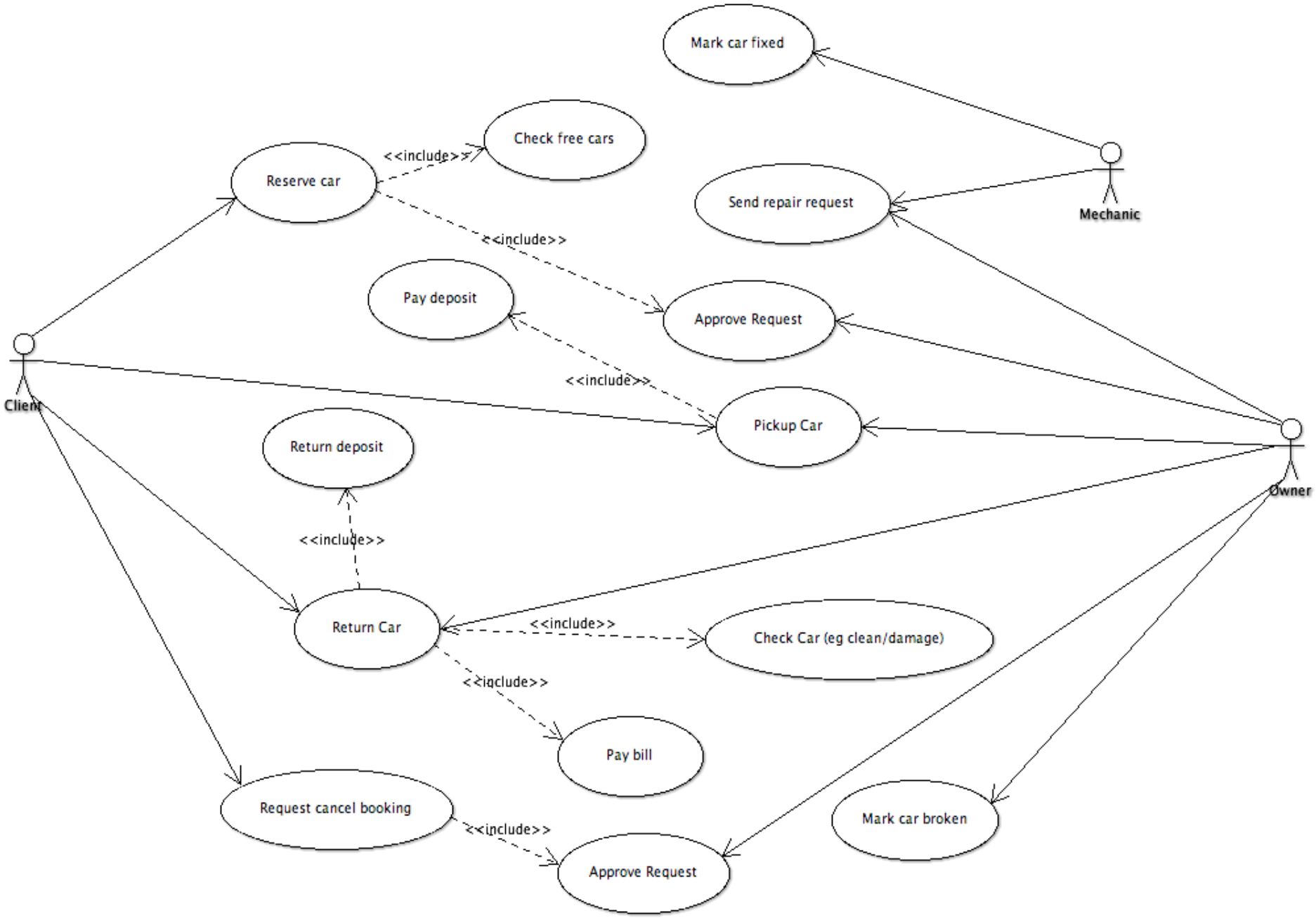

DVD rental operation
Selection
Browse store
Choose DVD
Rental
Take empty DVD case
Identify client
Identify DVD
Put DVD into empty case
Take money
Take DVD home
Returning
Give back DVD
Identify Client
Identify DVD
Pay overdue fee if returned late
Client
Worker
Clean up returned DVDs
Empty DVD case
Inspect DVD for damage
Put back empty case


DVD Rental
Return DVD
Browse through DVDs
<<include>>
Customer
Find title
Rent DVD
<<include>>
Coworker
Check Availability
<<include>>
Reserve DVD

Hans Wortel: S0607940
Tom Groentjes: S0231347
Travle shop case diagram
date: 18-10-2007

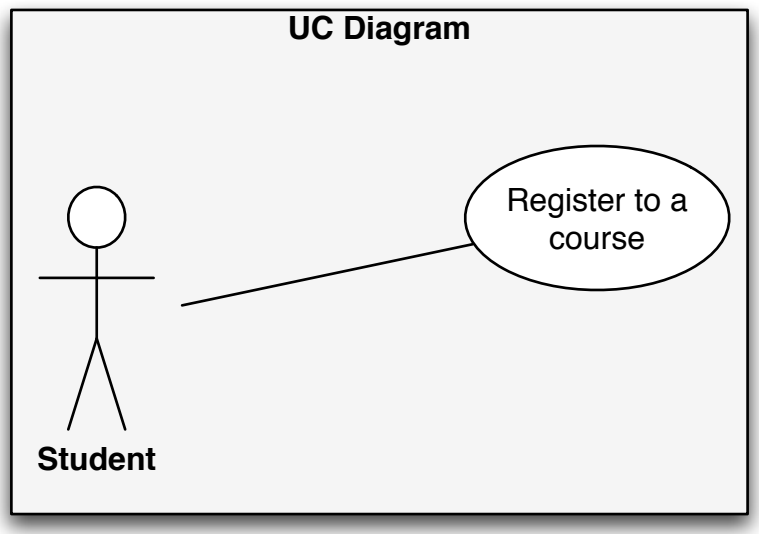



DVD Rental System
Register
Reservations
User
Login
Make a reservation
Remove reservation
Customer
Catalog
Rent a DVD
Renew rental
Browse
<<include>>
Comment on a DVD
Return a DVD
Find title
Add a DVD
Remove a DVD
Modify info
Employee


Mark car fixed
Check free cars
<<include>>
Reserve car
Send repair request
Mechanic
<<include>>
Pay deposit
Approve Request
<<include>>
Client
Pickup Car
Owner
Return deposit
<<include>>
Return Car
<<include>>
Check Car (eg clean/damage)
<<include>>
Pay bill
Request cancel booking
<<include>>
Approve Request
Mark car broken

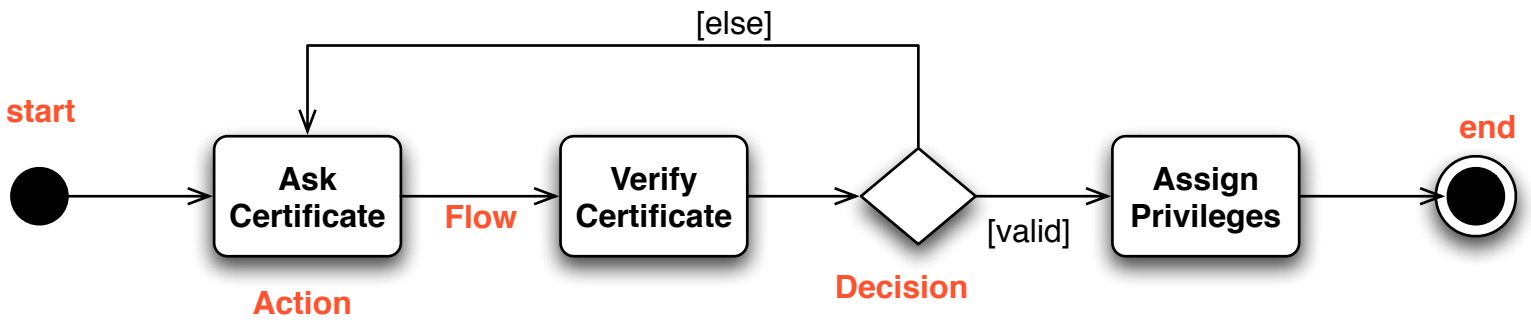
Activity Diagram

"Activity diagram is used to model the logic of a business process, use case, or methods"



Basic sequence of actions:
1. A student wants to register to a course
2. The student provides his name & student number to the registrar
3. The registrar verifies the student's eligibility
4. The student chooses a course from a list of available courses
5. ....
6. ....
7. ....

Creating an Activity Diagram



Authorizing Users

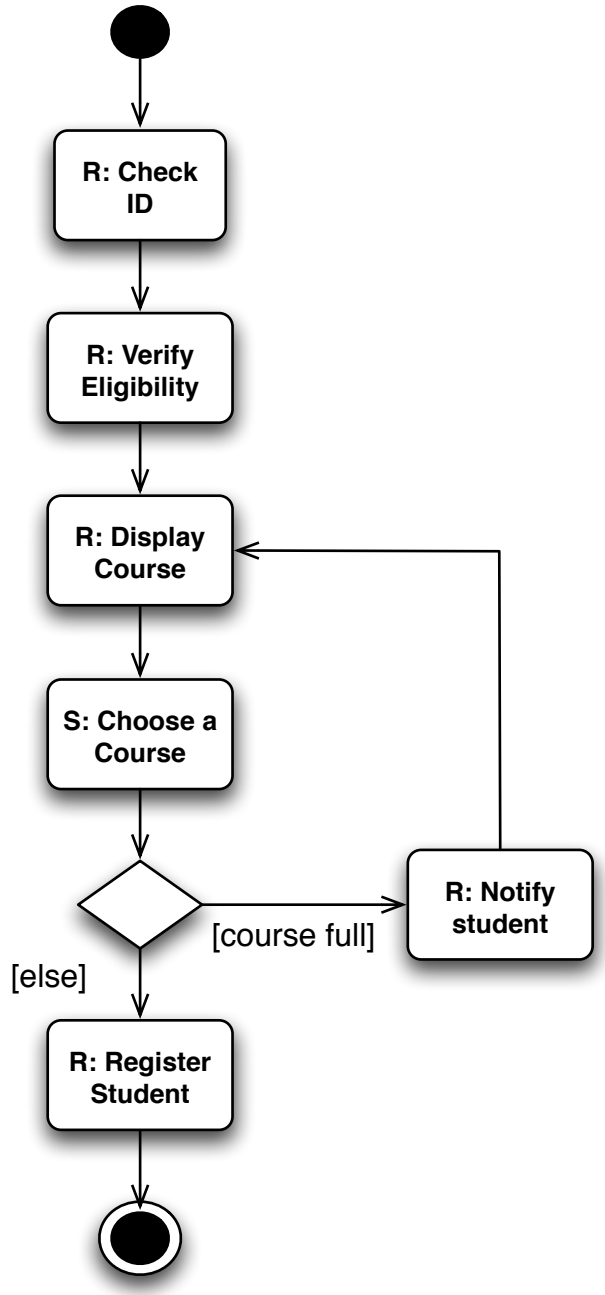
1. Identify the scope of the activity diagram (e.g., a use case)
2. Add start and end points
3. Add activities
4. Add transactions from the activities
5. Add decision points (if any)
6. Identify opportunities for parallel activities

Documenting a Use Case

Name : **Register to a Course**
Identifier : **UC 1**
Description : **Registering students to an existing course**
Actors : **Student(S), Registrar(R)**
Pre-condition : **The student is registered at the university**
Post-condition : **The student is registered to the requested course**
Extends : **--**
Include : **--**

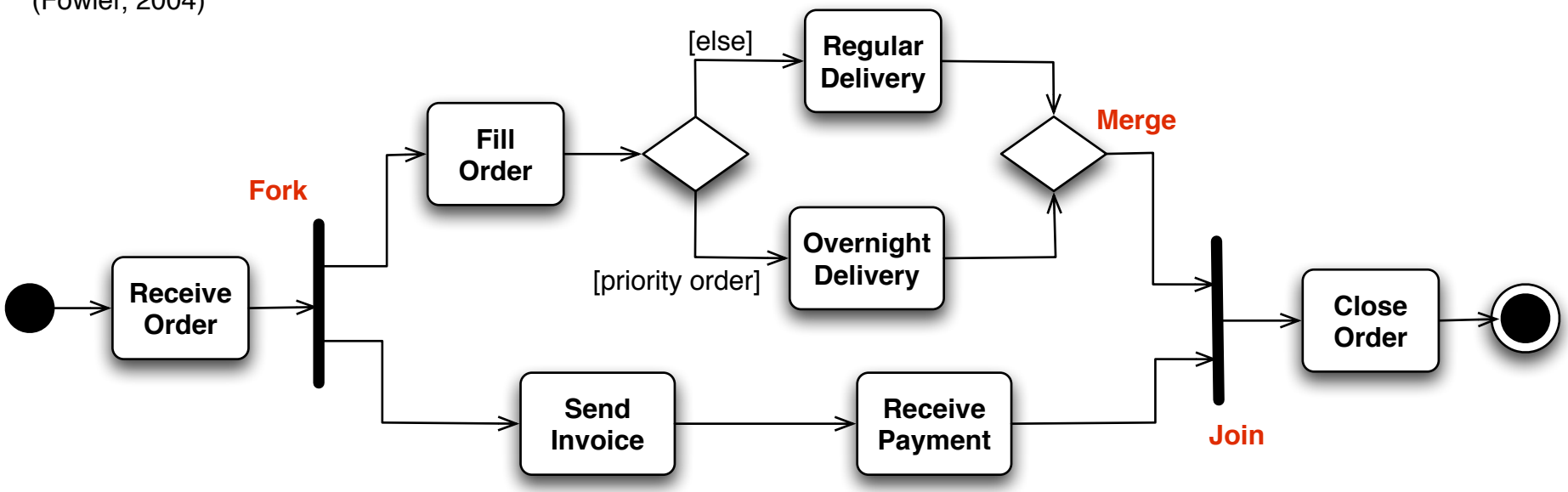
Basic course of action:
1. A student wants to register to a course
2. The registrar check student's ID
3. The registrar verifies the student's eligibility
4. The registrar shows a list of available courses for the student
5. The student chooses a course
6. The registrar register the student and give a confirmation
7. The use case ends

Alternate course A: The course is already full
A.1. Notify user that the course is already full
A.2. The use case continues at step 4 of the basic course action



Another Example

(Fowler, 2004)



Processing an Order

Practical Assignment

1. Choose three use cases that are most important. Make a use case descriptions for use case.

2. Make an activity diagram for each of the use case descriptions.

* In groups of two students
* Create and save your models in ArgoUML
* Send your models to **anugroho@liacs.nl**