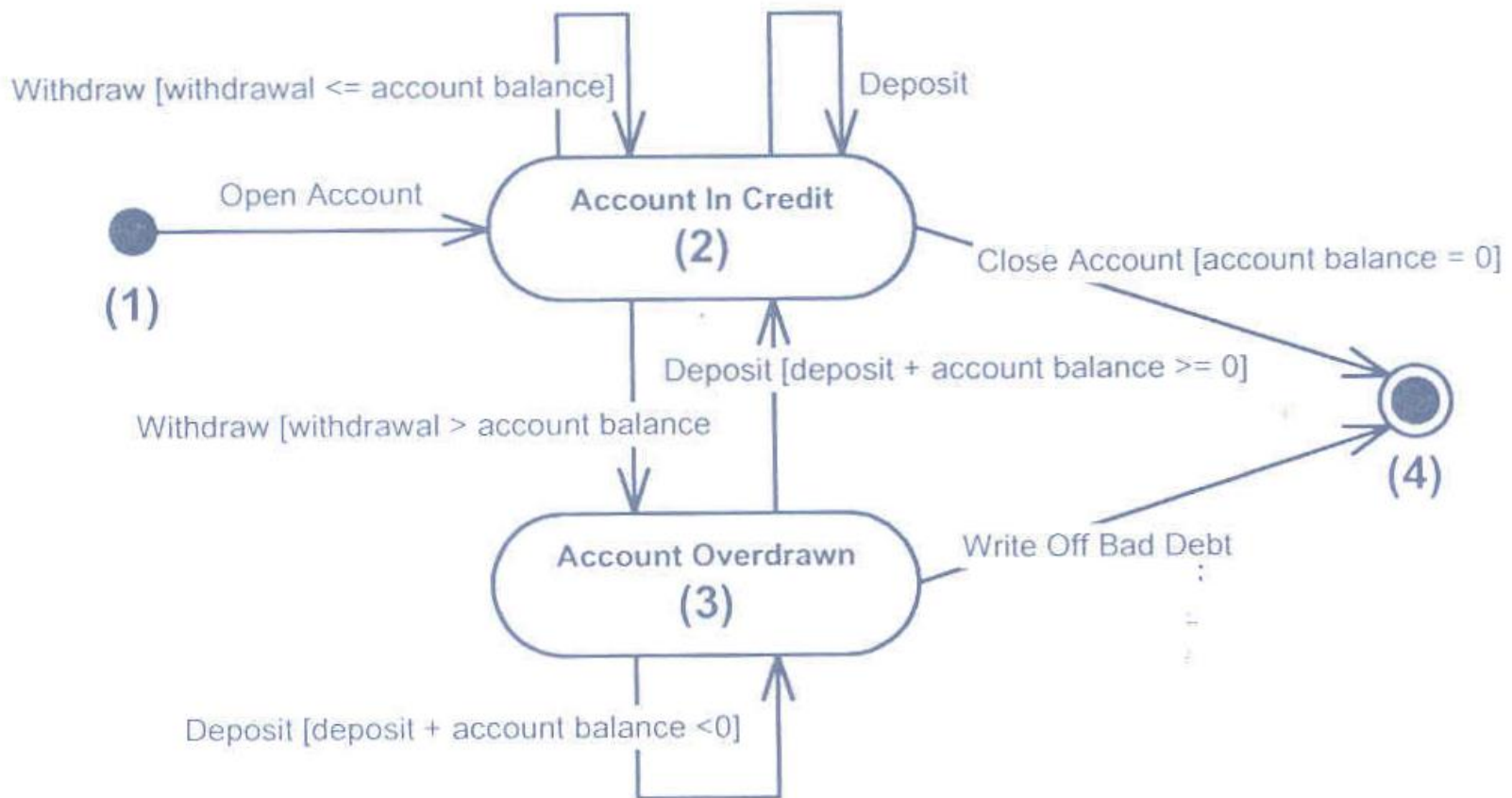


STATE TRANSITION TESTING

**Reference: Software Testing Course
@ Lonsdale System**

State Transition for a Bank Account



Prior State	New State	Valid Transition	Comment
1	1	N	
1	2	Y	New account
1	3	N	Possible negative test case
1	4	N	
2	1	N	
2	2	Y	Deposit and withdraw [withdrawal \leq account balance]
2	3	Y	Withdraw [withdrawal $>$ account balance]
2	4	Y	Closed account [account balance=0]
3	1	N	
3	2	Y	Deposit [deposit + account balance ≥ 0]
3	3	Y	Deposit [deposit + account balance < 0]
3	4	Y	Write Off Bad Debt [account balance < 0]
4	1	N	
4	2	N	Possible negative test case
4	3	N	Possible negative test case
4	4	N	Possible negative test case

Table 1: State Table for a Bank Account

Ba

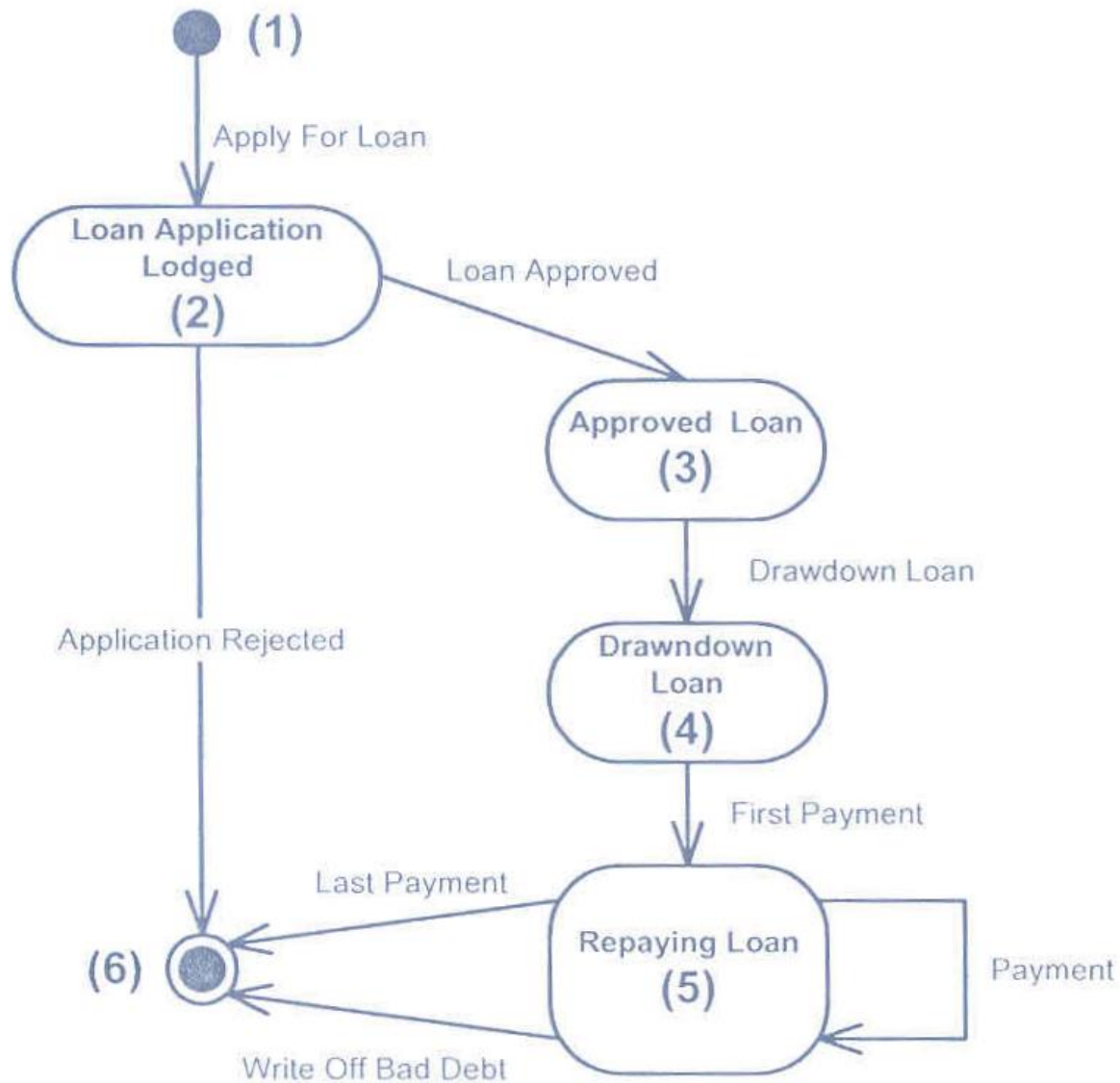


Figure 4: State transition diagram for a Bank Loan

Prior State	New State	Valid Transition	Comment
1	1	N	
1	2	Y	New loan application
1	3	N	
1	4	N	
1	5	N	
1	6	N	
2	1	N	
2	2	N	
2	3	Y	Loan approval
2	4	N	This tests that un-approved loans cannot be drawn down
2	5	?	Is there an application fee?
2	6	Y	Loan rejection
3	1	N	
3	2	?	Can approved loans be reconsidered?
3	3	N	
3	4	Y	Drawdown of loan
3	5	?	Can pre-payments be accepted?
3	6	N	
4	1	N	
4	2	?	Can a drawdown loan be reconsidered?
4	3	N	
4	4	?	Are multiple draw downs allowed?
4	5	Y	First Payment
4	6	?	Can a loan be written of before any payments have been made?
5	1	N	
5	2	N	
5	3	N	
5	4	?	Are multiple draw downs allowed?
5	5	Y	Payment during life of loan
5	6	Y	If account balance = 0, loan discharged If account balance < 0, loan default
6	1	N	
6	2	?	Can rejected loans be reconsidered
6	3	?	Can rejected loans be approved?
6	4	N	
6	5	?	Can written off loans be reinstated?
6	6	N	

Table 2: State Table for a Bank Loan

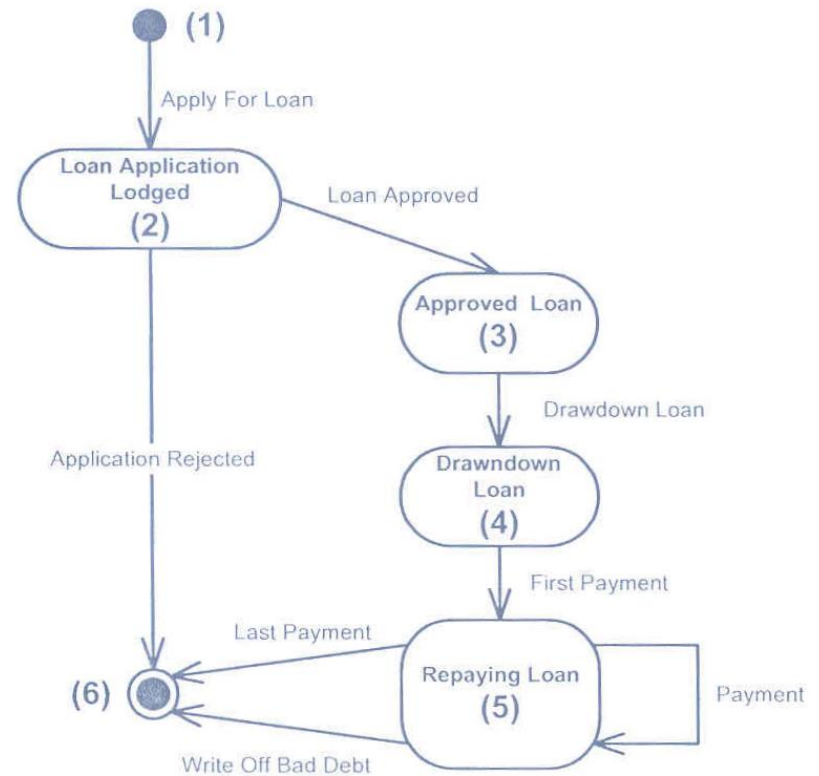
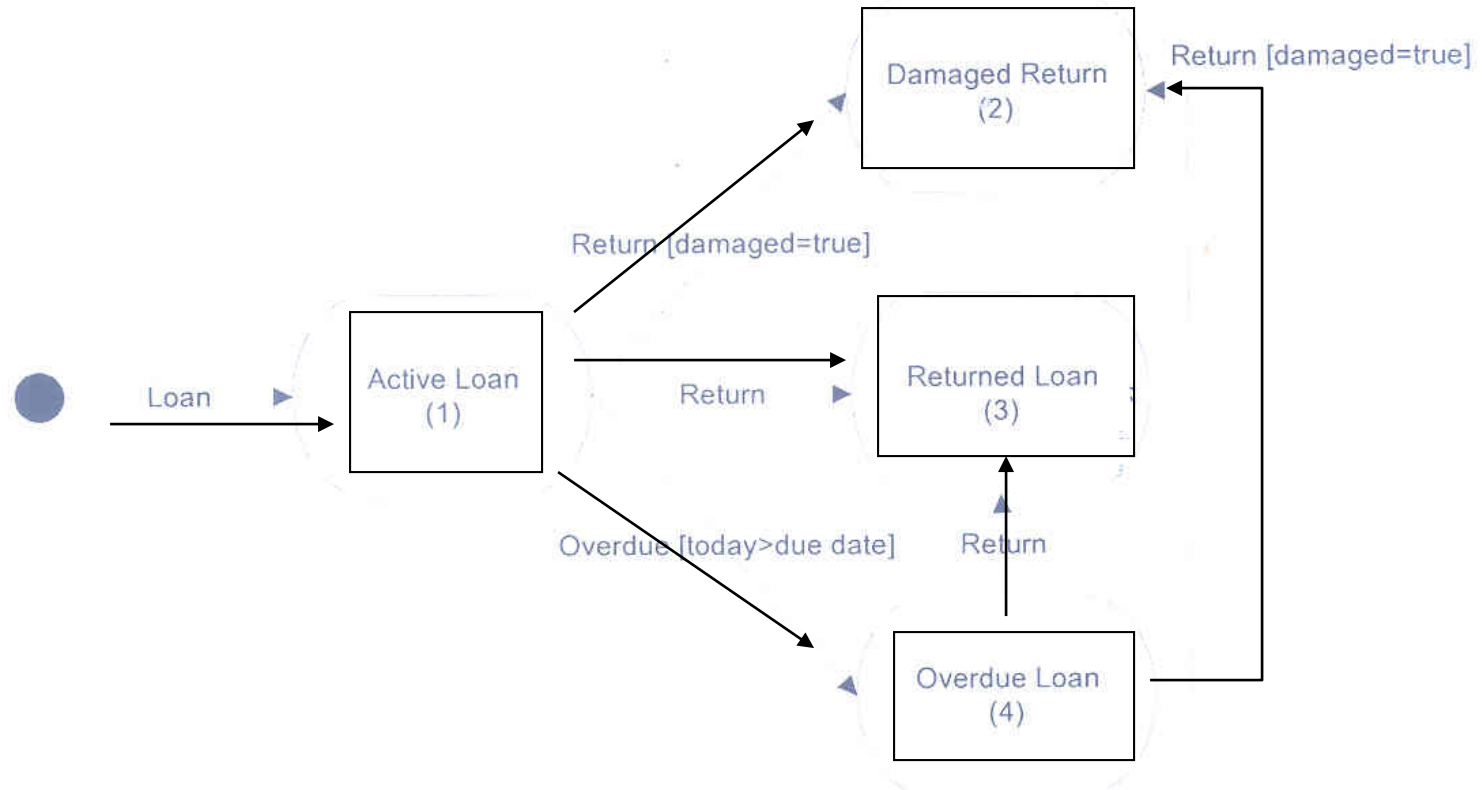
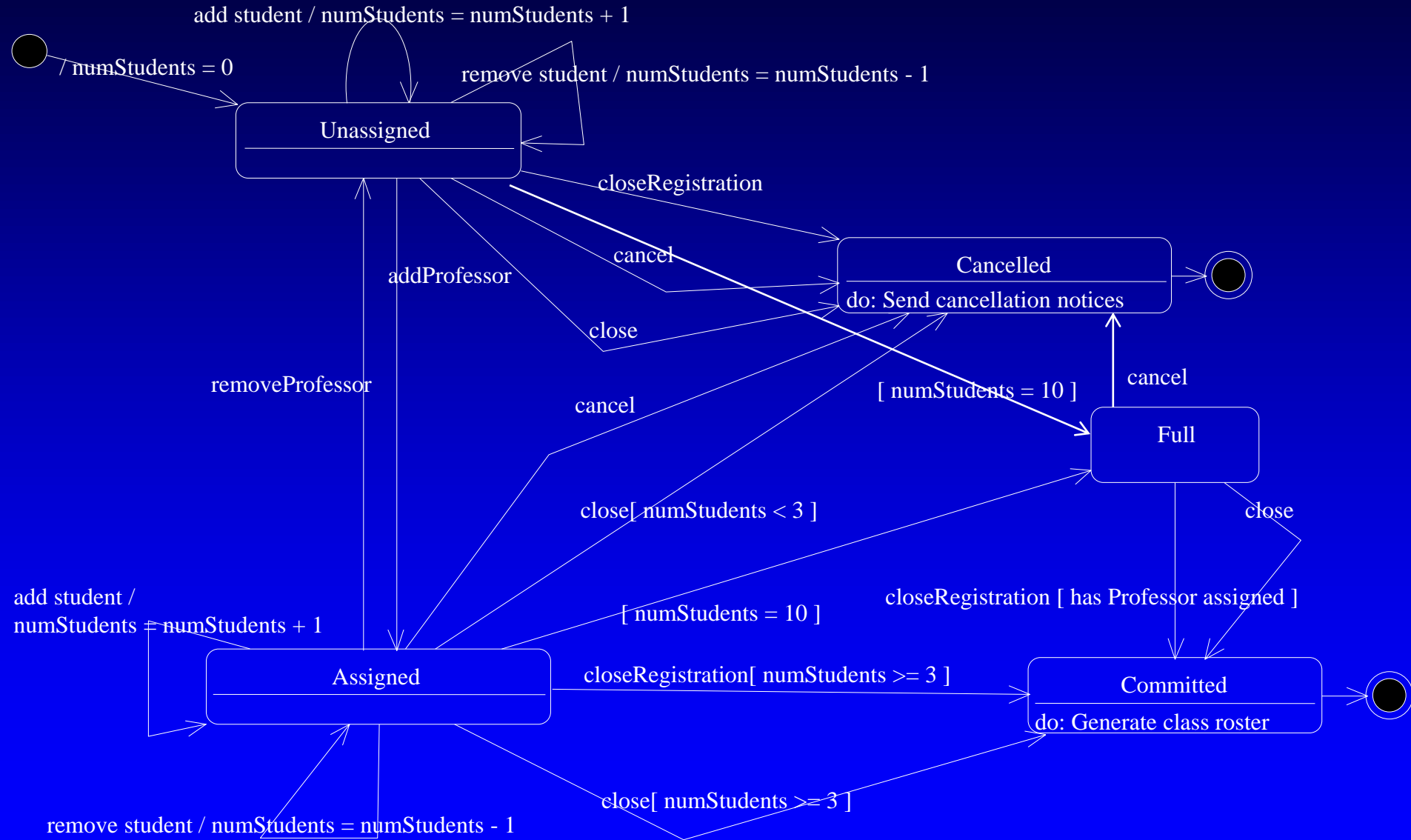


Figure 4: State transition diagram for a Bank Loan

Exercise

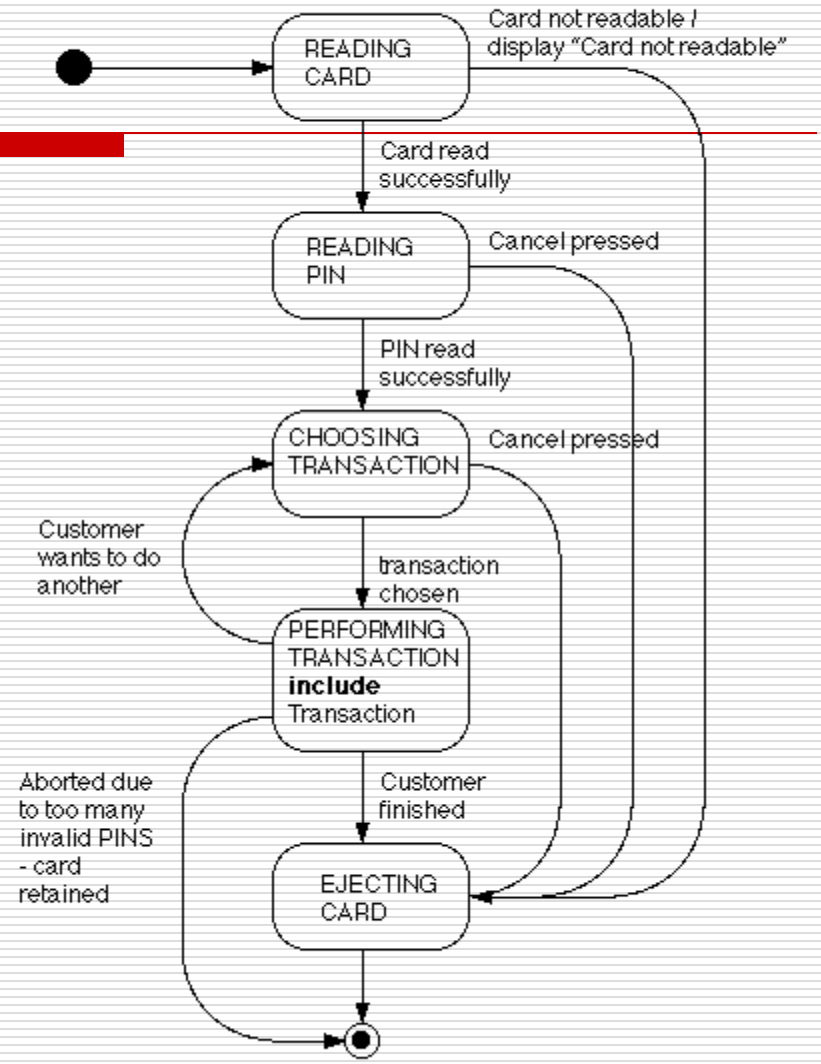


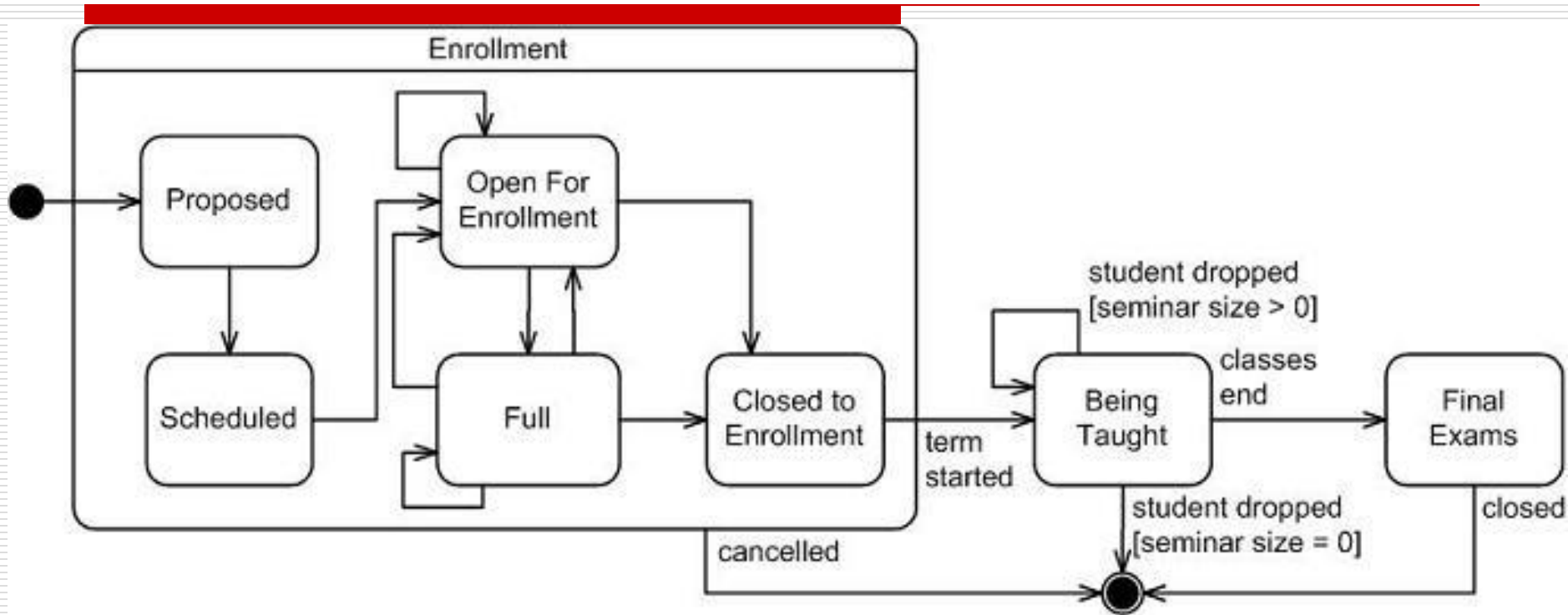
Statechart for Course Offering

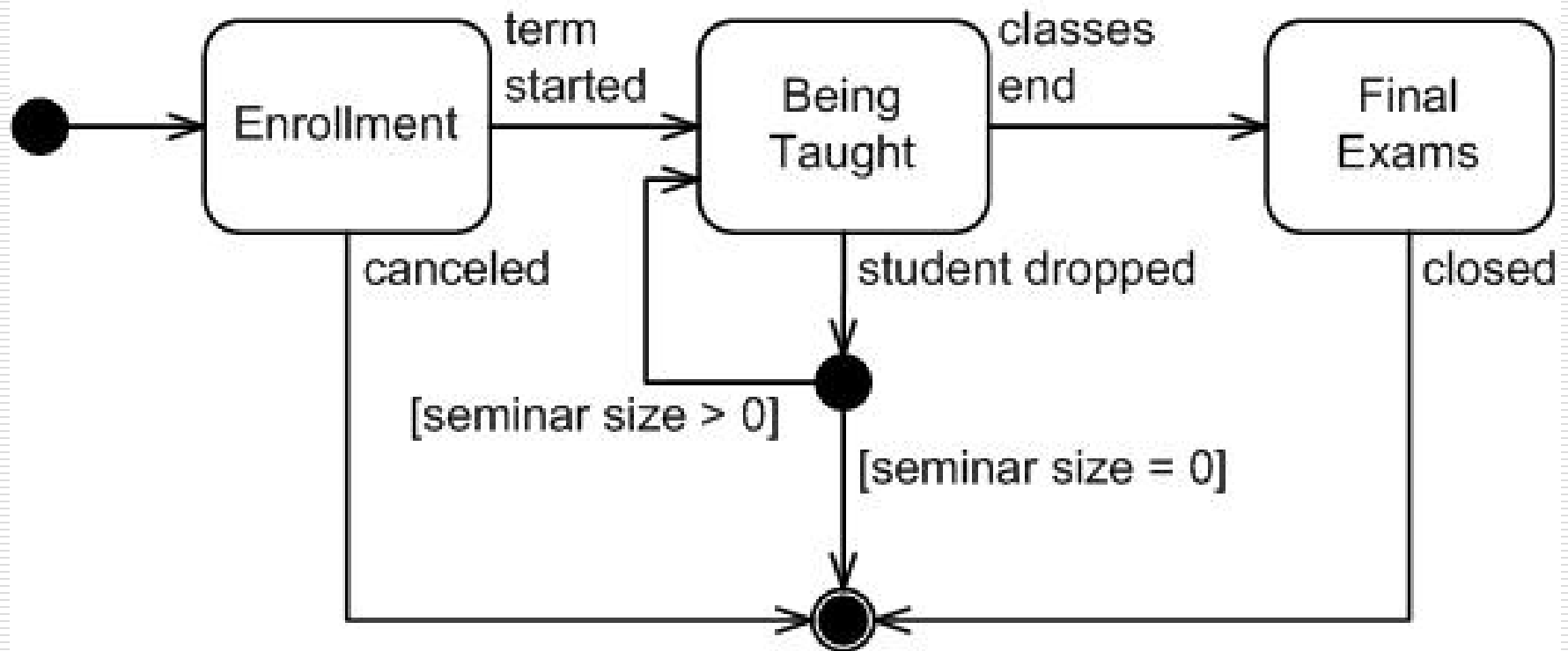


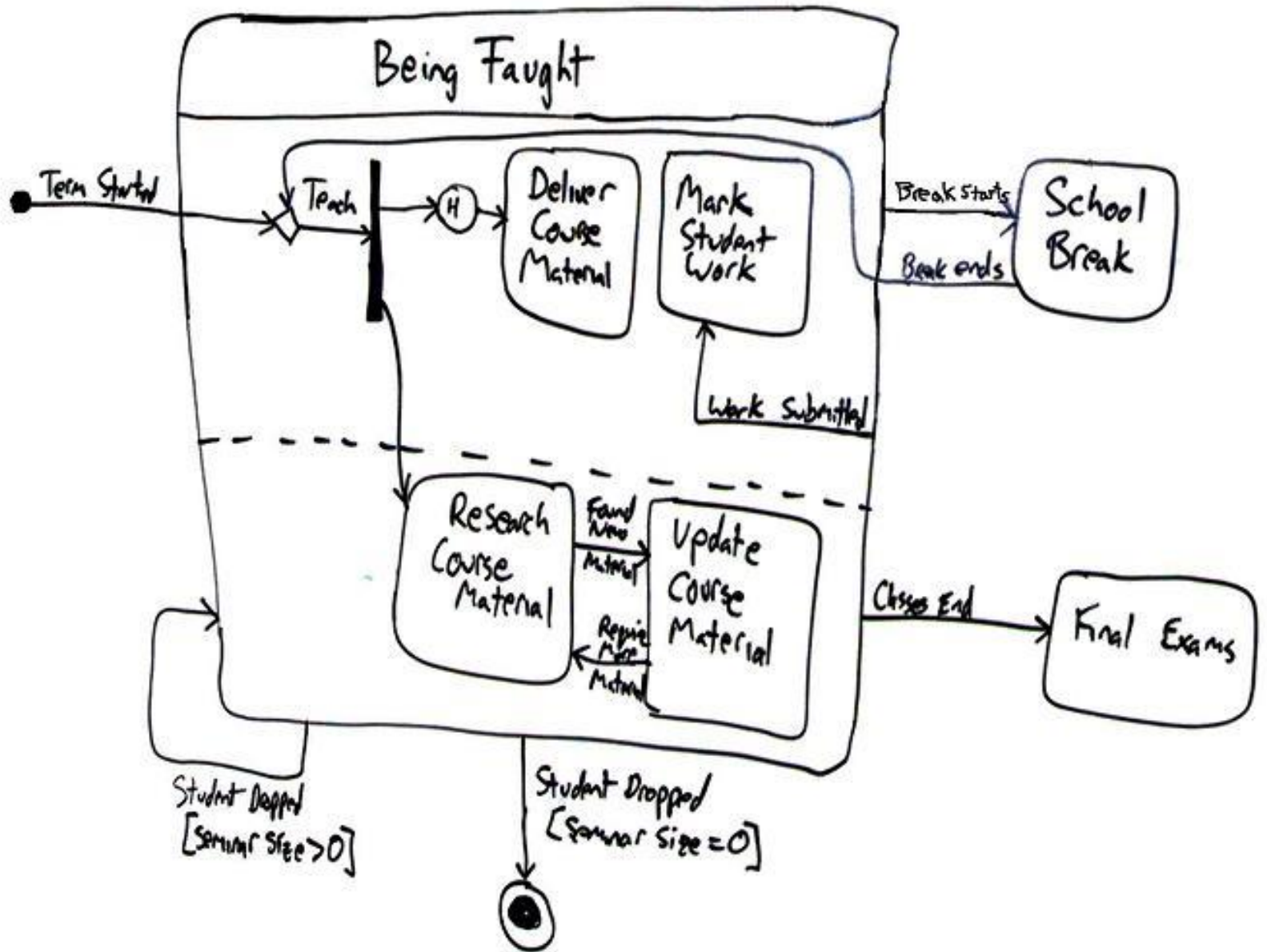
Statechart

State-Chart for One Session









Bài tập

- ☐ Tài khoản mobifone
- ☐ Thẻ thành viên
- ☐ Máy ATM
- ☐ Bài tập Moodle
- ☐ Trạng thái 1 sinh viên
- ☐ Môn học trong hệ thống ĐKHP
- ☐ Trạng thái 1 bug