Group 27, Exercise 1, TDT4140

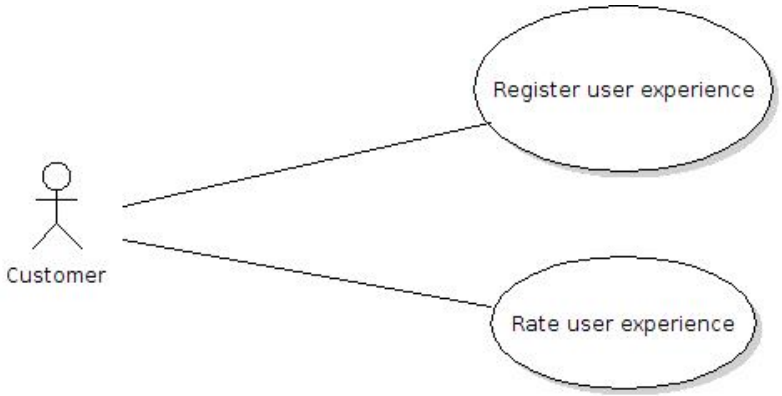
Andreas Drivenes,
Eivind Havikbotn,
Eivind Gjerde Johansen,
Einar Eilertsen Eldevik,
Nicholas Tidemann,
Bjørn Bråthen

February 12, 2014

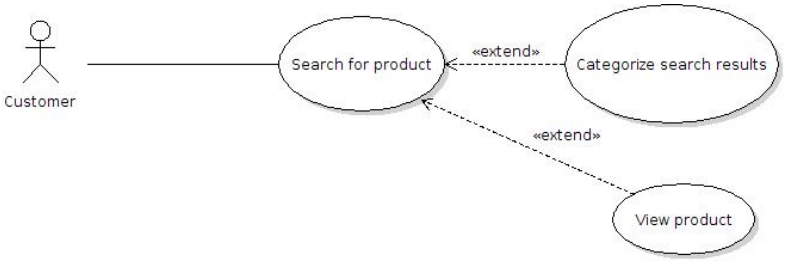
1 Our answer to exercise 1

a) S1.

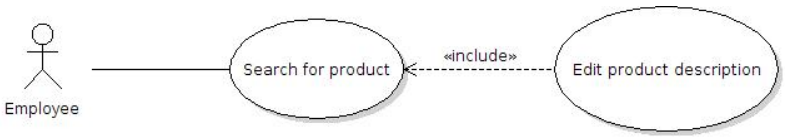
S2.



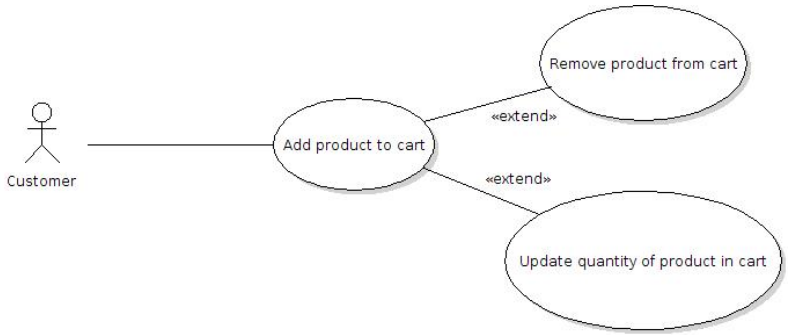
S3.



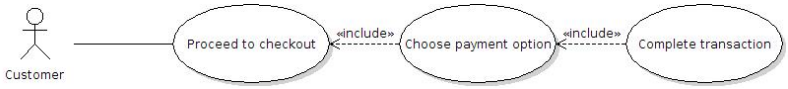
S4.



S5.



S6.



b) S1.

Name:	Register a product
Precondition:	Logged in as employee
1.	The employee clicks on Register a product
2.	The employee fills in name, price, info and product image. Additional information like manufacture links and tests is optional.
3.	He publishes the product and logs out.

S2.

Name:	Register experience with product
Precondition:	Logged in as customer.
1.	The customer finds the item he wants to register a product experience for.
2.	He writes an experience.
3.	He publishes and logs out.

Name:	Rate product experience
Precondition:	Logged in as customer.
1.	The customer finds the product experience he wants to rate.
2.	He rates it useful or not useful.
3.	He logs out.

S3.

Name:		Search for product
Precondition:		None
	1.	The customer enters a query in the search field. He clicks on search.
	2.	The customer filters by product attributes. (optional)
	3.	He clicks on a product and views detailed product information.
Error handling:	1.1	If search yields no results, he tries a different query.

S4.

Name:	Edit products
Precondition:	Logged in as employee
	1. The employee searches for the product he wants to edit. 2. He edits the product information. 3. He publishes and logs out.

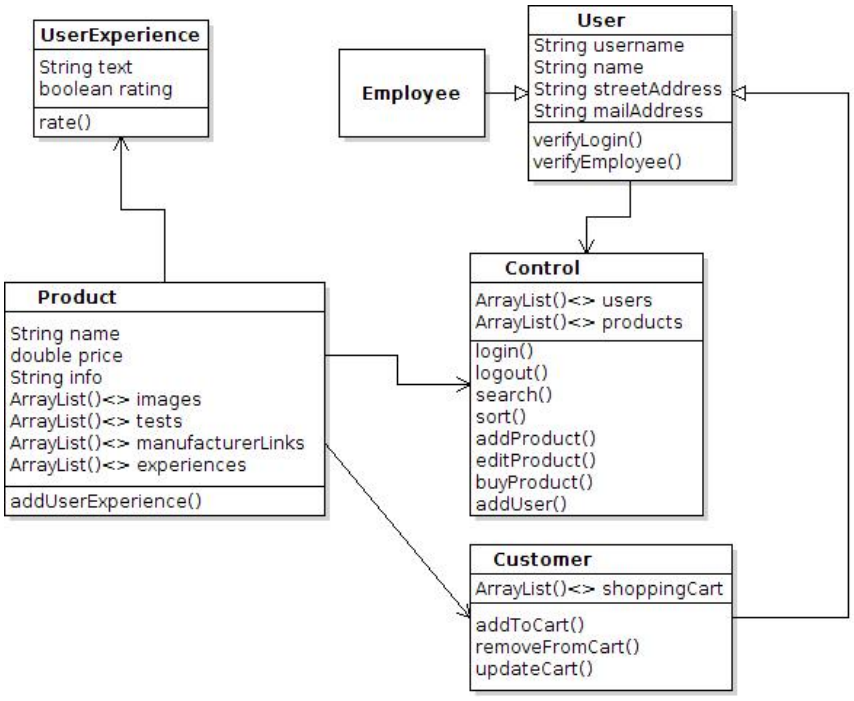
S5.

Name:	Edit shopping cart
Precondition:	Logged in as customer
	1. The customer finds a product and adds it to the shopping cart. 2. He can change quantity or remove product from the cart (optional).

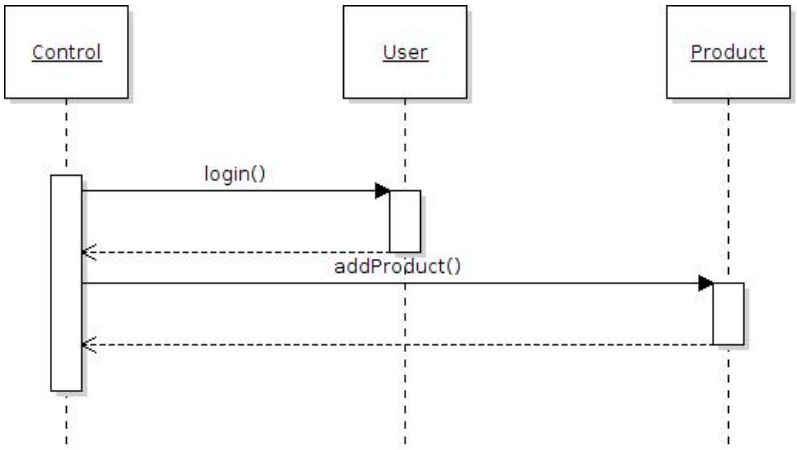
S6.

Name:	Buy product
Precondition:	There is at least one item in the shopping cart.
	1. The customer proceeds to checkout. 2. He chooses payment option. 3. He completes the transaction on a 3rd party website and is sent back for confirmation and receipt.

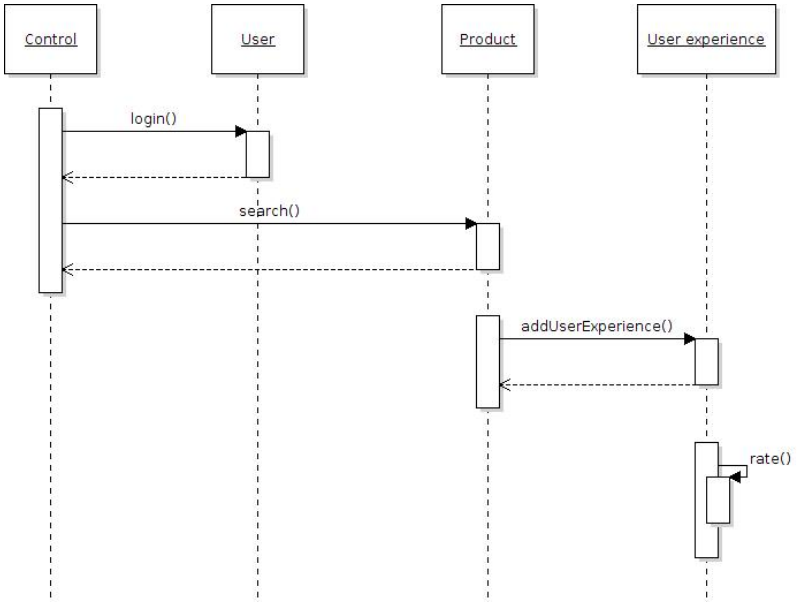
c)



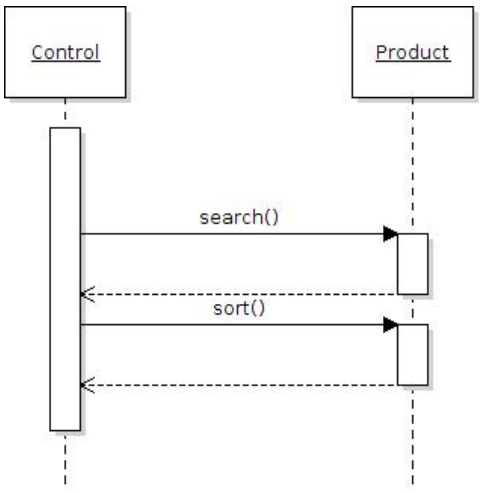
d) S1.


Control
User
Product
login()
addProduct()

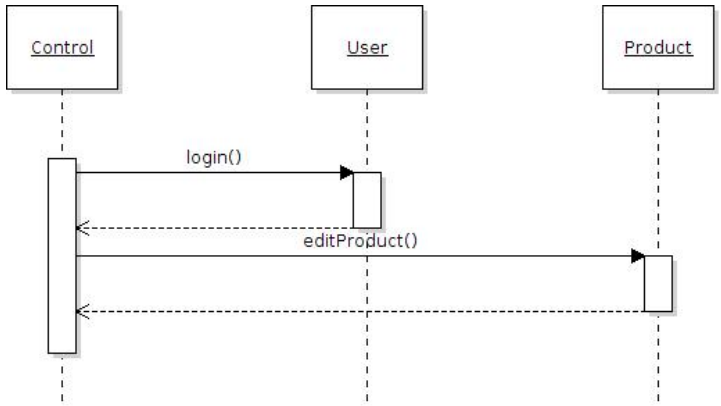
S2.


Control
User
Product
User experience
login()
search()
addUserExperience()
rate()

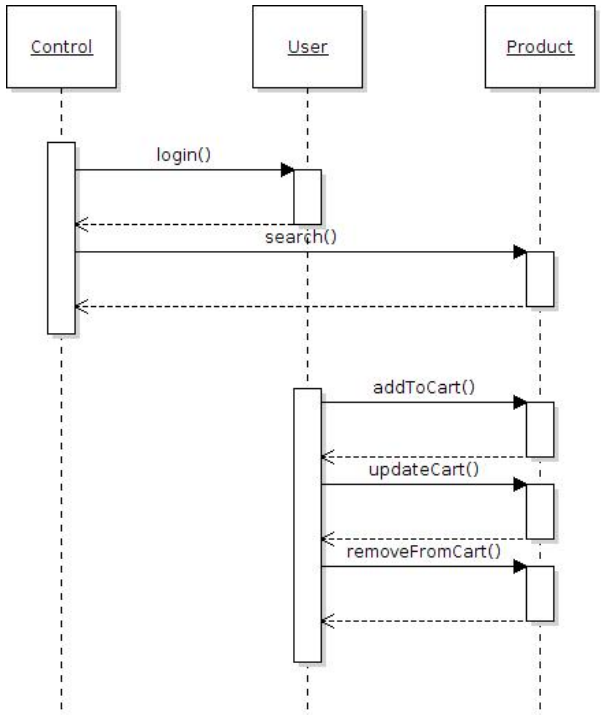
S3.


Control
Product
search()
sort()

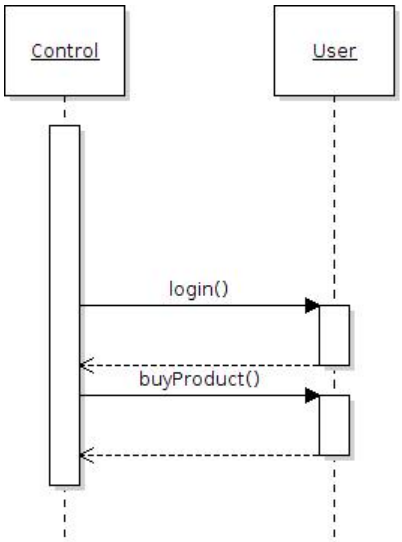
S4.


Control
User
Product
login()
editProduct()

S5.


Control
User
Product
login()
search()
addToCart()
updateCart()
removeFromCart()

S6.



nr	aktivitet	min	normal	maks
1	Database model 1		30	
2	Database model 2		30	
3	Register product		15	
4	Register product (GUI)		15	
5	Register and rate experience with product		20	
6	Register and rate experience with product (GUI)		20	
7	Search product		20	
8	Search product (GUI)		15	
9	Edit product		10	
10	Edit project (GUI)		10	
11	Edit shopping cart		20	
12	Edit shopping cart (GUI)		20	
13	Buy product		25	
14	Buy product (GUI)		20	
15	Documentation of database model		15	
16	Documentation of Middle layer		25	
17	Documentation og GUI		10	
18	Test register product		10	
19	Test register experience and rating		10	
20	Test search product		10	
21	Test edit product		10	
22	Test edit shopping cart		10	
23	Test buy product		15	
24	Test security		20	
25	Project management		80	
sum			485	

Table 1: Project bulks/milestones

e) We estimate that the cost of the project would be,

$$C = c_{avg} * h = 800 * 485 = 388000kr$$

where c_{avg} is average cost per hour per developer, and h is number of hours.

Acticity	**Week 1**	**Week 2**	**Week 3**	**Week 4**
1	DB (15h)	DB (15h)		
2			DB (15h)	DB (15h)
3	D1 (15h)			
4	D2 (15h)			
5	D3 (20h)			
6	D4 (20h)			
7		D1 (20h)		
8		D2 (15h)		
9	D1 (10h)			
10	D2 (10h)			
11		D3 (20h)		
12		D4 (20h)		
13			D1 (25h)	
14			D2 (20h)	
15				DB (15h)
16			D3 (25h)	
17			D4 (10h)	
18			D4 (10h)	
19				D1 (10h)
20				D1 (10h)
21				D1 (10h)
22				D2 (10h)
23				D2 (15h)
24				D3 (20h)
25	PM (20h)	PM (20h)	PM (20h)	PM (20h)

Table 2: Projects' gantt diagram.

DB	Database Expert
D1	Developer 1
D2	Developer 2
D3	Developer 3
D4	Developer 4
PM	Project Manager

TestID	1
Test item (features to be tested)	Register product
Approach	An employee runs a test on the system. The system has to be run on a representative computer. The test is repeated at different time intervals.
Item pass / fail criteria	The product has to be registered in a database with the correct information.
Input data	Product name: Intel CPU Product price: 2499 NOK Product image: http://www.intel.com/images/26262 Tests: http://www.cnet.com/tests/intel/23434, http://www.itavisen.no/tester/7367 Manufacturer links: http://www.intel.com/product/3432/v2
Expected results	Product with the specific input data should be added to the system.
Testing task (description of test)	1.The employee clicks on Register a product 2. The employee fills in name, price, info and product image. Additional information like manufacture links and tests is optional. 3. He publishes the product. 4. He verifies that the product has been correctly added.
Necessary environmental requirements	The user must be an employee and logged into the system.
References to user scenario, use case, sequence diagrams and overall class diagram	Scenario 1
Any dependability between this test and the other tests defined.	NaN

f)

TestID	2.1
Test item (features to be tested)	Register experience with product
Approach	A user runs a test on the system. The system has to be run on a representative computer. The test is repeated at different time intervals.
Item pass / fail criteria	The experience has to be registered in a database with the correct information.
Input data	Title: Great product! Text: I like this fantastic product!
Expected results	The product experience should be added to the system.
Testing task (description of test)	1. The user finds the item he wants to register a product experience for. 2. He writes an experience. 3. He publishes. 4. He verifies that the experience is correctly added to the system.
Necessary environmental requirements	The user must be logged in.
References to user scenario, use case, sequence diagrams and overall class diagram	Scenario 2
Any dependability between this test and the other tests defined.	Scenario 1 has to be completed at least once.

TestID	2.2
Test item (features to be tested)	Rate experience
Approach	A user runs a test on the system. The system has to be run on a representative computer. The test is repeated at different time intervals.
Item pass / fail criteria	The rating of the experience has to be registered in a database with the correct information.
Input data **Expected results**	Value: true/false The rating of the experience should be added to the system.
Testing task (description of test)	1. The customer finds the product experience he wants to rate. 2. He rates it useful or not useful. 3. He verifies that the rating of the experience is registered.
Necessary environmental requirements	The user must be logged in.
References to user scenario, use case, sequence diagrams and overall class diagram	Scenario 2
Any dependability between this test and the other tests defined.	Scenario 1 and scenario 2.1 has to be completed at least once.

TestID	3
Test item (features to be tested)	Search for product
Approach	A user runs a test on the system. The system has to be run on a representative computer. The test is repeated at different time intervals.
Item pass / fail criteria	The correct information has to be retrieved and displayed on screen.
Input data	Search input: Intel CPU.
Expected results	The entry for Intel CPU should be displayed on screen.
Testing task (description of test)	1. The customer enters a query in the search field. He clicks on search. 2. The customer filters by product attributes (optional). 3. He clicks on a product and views detailed product information.
Necessary environmental requirements	None.
References to user scenario, use case, sequence diagrams and overall class diagram	Scenario 3
Any dependability between this test and the other tests defined.	Scenario 1 has to be completed at least once.

TestID	4
Test item (features to be tested)	Edit product
Approach	A user runs a test on the system. The system has to be run on a representative computer. The test is repeated at different time intervals.
Item pass / fail criteria	Information about the product was correctly updated.
Input data	Product name: Intel CPU Product price: 4999 NOK Product image: http://www.intel.com/images/26276 Tests: http://www.cnet.com/tests/intel/23435, http://www.itavisen.no/tester/7331 Manufacturer links: http://www.intel.com/product/3432/v2
Expected results	The new information should be displayed in the entry.
Testing task (description of test)	1. The employee searches for the product he wants to edit. 2. He edits the product information. 3. He publishes and logs out.
Necessary environmental requirements	The user must be an employee and logged into the system.
References to user scenario, use case, sequence diagrams and overall class diagram	Scenario 4
Any dependability between this test and the other tests defined.	Scenario 1 has to be completed at least once.

TestID	5
Test item (features to be tested)	Edit shopping cart
Approach	A user runs a test on the system. The system has to be run on a representative computer. The test is repeated at different time intervals.
Item pass / fail criteria	The user's shopping cart has to be updated with the correct data.
Input data	Product name: Intel CPU
Expected results	The product should get added to the shopping cart.
Testing task (description of test)	1. The customer finds a product and adds it to the shopping cart. 2. He can change quantity or remove product from the cart (optional).
Necessary environmental requirements	The user must be logged in.
References to user scenario, use case, sequence diagrams and overall class diagram	Scenario 5
Any dependability between this test and the other tests defined.	Scenario 1 has to be completed at least once.

TestID	6
Test item (features to be tested)	Buy product
Approach	A user runs a test on the system. The system has to be run on a representative computer. The test is repeated at different time intervals.
Item pass / fail criteria	The correct products must get shpped to the provided address.
Input data	A shopping cart
Expected results	The product is to be found in your mailbox within a limited amount of time.
Testing task (description of test)	1. The customer proceeds to checkout. 2. He chooses payment option. 3. He completes the transaction on a 3rd party website and is sent back for confirmation and receipt.
Necessary environmental requirements	The user must be logged in and have at least one item in his shopping cart.
References to user scenario, use case, sequence diagrams and overall class diagram	Scenario 6
Any dependability between this test and the other tests defined.	Scenario 1 and 5 each have to be completed at least once.