

Activity 2031. Define Essential Use-Cases

● Name : 1. 가

Actors: ,

Description:

- use case Airline Booking System
가 .
- Id, password, , , email , , .
- 가 .
- .
- 가 가 .

Type: Primary

Cross-References : System functions R1.1.1, R1.1.2, R2.1

Use Case: ,

Preconditions: 가

Typical Course of Event :

Actor Action	System Response
1. 가	2. 가
3.	4. 가 DB
6.	5.
8. ID .	7.
9. ID	10. "ID " usecase
11. password, password , , , email , .	
12.	13. Use case
14.	15.
	16. (" " usecase -

)
17.	insert (DB)
18.	

Alternative Courses

Exception Course

Line 4. 가 ID

Line 4. , Line 5

Line 6.

Line 14.

Line 15. ID

Line 15.

Line 15. 가 4~8

Line 15. 가

Line 15. 가

Line 15. e-mail

Line 15. 가

● Name : 2.

Actors : ,

Description:

- Use case 가
- DB
- 가

Type: Primary

Cross-References : System functions R1.1.1, R1.2

Use Case: 가 ,

Preconditions: 가

Typical Course of Event :

Actor Action	System Response
2. “ ”	1.
3. “ ”	4. DB

5.	
7.	6.
8.	9. 가

● Name : 3. ID

Actors: ,

Description:

- use case ID가
- ID가 ID
- ID가 ID

Type: Primary

Cross-References : System functions: R1.1.1, R1.1.2

Use Case: 가

Preconditions: 가

Typical Course of Event

Actor Action	System Response
	1. ID
	2. DB ID
	3. ID
	4. ID가 가

Alternative Courses

Exception Course

Line 1. ID가 4~8

Line 1. ID 가

Line 3. ID ID

● Name : 4.

Actors: ,

Description:

- password, email ,

Type: Primary

Cross-References : System functions R1.2

Use Case:

Preconditions: 가

Typical Course of Event

Actor Action	System Response
1.	
	2.
	3.
4. password, email , ,	
5.	
	6.
	7. DB
	8.

Alternative Courses

Exception Course

Line 4. “ ”use case .

Line 5. 가

Line 6.

Line 6. 가 4~8

Line 6. 가

Line 6. e-mail

Line 6. 가

● Name 5.

Actors: ,

Description:

- use case

- ID password

- ID, password가 가 ID, password

Type: Primary

Cross-References : System functions R1.3

Use Case:

Preconditions: 가

Typical Course of Event

Actor Action	System Response
1.	
3. ID	2. ID
4.	
	5. DB
	6. DB
	7.

Alternative Courses

Exception Course

Line 4. 가

Line 6. ID가

- Name : 6.

Actors:

Description:

- use case 가

-

Table

Type: Primary

Cross-References : System functions R1.1.1, R2.1

Use Case: 가

Preconditions:

Typical Course of Event :

Actor Action	System Response
	1. DB
	2.
	3. DB

Typical Course of Event :

Actor Action	System Response
	1. 가 50 2.

Alternative Courses

Exception Course

Line 1 : 가 50

- Name : 9.

Actors:

Description:

- use case 가 100
upgrade

Type: Secondary

Cross-References : System functions R2.4, R9

Use Case:

Preconditions:

Typical Course of Event :

Actor Action	System Response
	1. 가 100 2.

Alternative Courses

Exception Course

Line 1 : 가 100

- Name : 10.

Actors: ,

Description:

- use case ID, password
- ID가 , ID가 “ ID가
” , 가 , ID

- ID Password가 "Passowrd가
- ID password가 session

Type: Primary

Cross-References : System functions R3.1.1, R3.1.2, R3.1.3

Use Case: ID ,

Preconditions: 가

Typical Course of Event

Actor Action	System Response
1. ID	
2.	
	3. ID DB
	4.
	5.

Alternative Courses

Exception Course

Line 3. ID

Line 3. ID가 DB 가 , ID

Line 4. ID 가 ,

● Name : 11. ID

Actors: ,

Description:

- ID

- ID

Type: Primary

Cross-References : System functions R3.1.1, R3.1.2, R3.1.3

Use Case: ,

Preconditions: 가

Typical Course of Event

Actor Action	System Response
1. ID	
	2.
3.	

4.	5. 6. ID 7.	DB
----	-------------------	----

Alternative Courses

Exception Course

Line 5. 가

Line 5.

Line 6. , 가

Line 6. ,

Line 7. .

● Name : 12.

Actors: ,

Description:

- Password ID .

- ID Password .

Type: Primary

Cross-References : System functions R3.1.1, R3.1.2, R3.1.3

Use Case: , ID

Preconditions: 가 .

Typical Course of Event

Actor Action	System Response
1.	
3. ID	3. ID
4.	
	5.
	6. ID DB
	7.

Alternative Courses

Exception Course

Line 5. 가

Line 5. ID

<p>4.</p> <p>6.</p>	<p>5.</p> <p>(“ Use Case ”)</p> <p>7.</p> <p>8. insert</p> <p>(DB)</p> <p>9.</p>
---------------------	---

Alternative Courses

Exception Course

Line 5.

Line 5. “ 2 - - ”

Line 5.

Line 6.

Line 7. DB , DB

● Name : 15.

Actors:

Description:

가

Type: Primary

Cross-References : System functions R4.1.2, R4.2.2, R, 4.3

Use Case:

Preconditions:

Typical Course of Event

Actor Action	System Response
1.	2.

3.	
4.	
5.	“ Use Case ”
6.	
7.	DB
8.	

Alternative Courses

Exception Course

Line 5.

Line 5. “ 2 - - ”

Line 5.

Line 6. 가

Line 8. DB ,

DB

● Name : 16.

Actors:

Description:

-
-
- 가
-

Type: Primary

Cross-References : System functions R4.1.1, R4.2.1, R4.3

Use Case: 가, 가

Preconditions: 가

Typical Course of Event

Actor Action	System Response
	1. , ,

Alternative Courses

Exception Course

Line 4.

● Name : 18.

Actors : ,

Description :

-

-

-

Type: Primary

Cross-References : System functions R6.1, R8, R9

Use Case: ,

Preconditions:

Typical Course of Event

Actor Action	System Response
1. (, , , , ,)	
. (A-1)	
2. " "	
	3.
	DB
4.	(, , ,)
5.	
	6.
	7.
	DB
	8.
	9.
10.	

<p>12.</p> <p>13. “ ” .</p> <p>16. (, , ,)</p> <p>17. “ ” .</p>	<p>11.</p> <p>14. , DB</p> <p>15. , ,</p> <p>18. “ ” .</p> <p>19. “ ” .</p> <p>20. , ,</p>
--	--

Alternative Courses

A-1.

courses

Actor Action	System Response
<p>1. “ ” .</p> <p>4.</p> <p>7.</p> <p>8. “ ” .</p>	<p>2.</p> <p>DB</p> <p>3. (, , ,)</p> <p>5.</p> <p>6.</p> <p>9. , DB</p> <p>10. , ,</p>

11. (, ,)	
12. " " .	13. " " .
	14. " " .
	15. , , .

A-1 Exception Courses

Line 2.

Line 5.

Line 6.

Line 11. " " DB false

Line 11. " " ,

Exception Course

Line 4.

Line 5.

Line 6.

Line 7.

Line 10.

Line 10.

Line 16. " " DB false

Line 16. , .

● Name : 19.

Actors : ,

Description :

- .
- ,
- , .

Type: Primary

Cross-References : System functions R6.1, R8, R9

Use Case: ,

Preconditions:

Typical Course of Event

Actor Action	System Response
1. (, , , , , ,) .(A-1)	
2. " "	
	3. DB
	4. (, , , ,)
5.	
	6. 7.
	DB
	8. 9.
10.	
	11.
12.	
13. " "	14. , DB
	15. , ,
16. (, , , , , ,)	
17. (, , , , ,)	
18. " "	

	19. “ ” . 20. “ ” . 21. , , .
--	-------------------------------------

Alternative Courses

A-1.

Courses .

Actor Action	System Response
1. “ ” .	2.
	DB .
	3. (, , ,) .
4.	
	5. .
	6.
7.	
8. “ ” .	9. , DB .
	10. , , .
11. (, , , ,) .	
12. “ ” .	
13. (, , , ,) .	
	14. “ ” .
	15. “ ” .
	16. , , .

Line 2.

Line 5.

Line 6.

Line 11. “ ” DB false

Line 11. “ ” ,

Line 13. “ ”

Exception Course

Line 4.

Line 5.

Line 6.

Line 7.

Line 10.

Line 10.

Line 17. “ ”

Line 17. ,

● Name : 19.

Actors : ,

Description :

- use case 가 가

Type: Primary

Cross-References : System functions R6.2, R9

Use Case:

Preconditions:

가

Typical Course of Event

Actor Action	System Response
1.	
3. (, , ,)	2.
4. “ ”	5. 가

Preconditions:

가

Typical Course of Event

Actor Action	System Response
1.	2.
4.	3.
	5. 가
	6. DB (, ,)
7. “ ”	8.
9. “ ”	10. DB
	11.

Alternative Courses

Exception Course

Line 2.

Line 5. 가

Line 6.

Line 6. 가

● Name : 21.

Actors : ,

Description :

-

-

Type: Primary

Cross-References : System functions R6.3

Use Case:

Preconditions:

가

Typical Course of Event

Actor Action	System Response
1.	2.
3.	4.
5.	6.

Alternative Courses

Exception Course

● Name : 22.

Actors : ,

Description :

-

-

Type: Primary

Cross-References : System functions R6.5

Use Case:

Preconditions:

90

Typical Course of Event

Actor Action	System Response
1.	2.
3.	
4.	

	5. DB
	6.

Alternative Courses

Exception Course

Line4.

Line5. 가 가

● Name : 23.

Actors : ,

Description :

-

-

Type: Primary

Cross-References : System functions R6.4

Use Case:

Preconditions:

Typical Course of Event

Actor Action	System Response
1.	
3. “ ”	2.
	4. DB
	5.

Alternative Courses

Exception Course

Line 3. “ ”

● Name : 24.

Actors : ,

Description :

-

-

Type: Primary

Cross-References : System functions R6.6

Use Case:

Preconditions:

Typical Course of Event

Actor Action	System Response
1.	2.
3. “ ”	4. DB
	5.
	5. 가

Alternative Courses

Exception Course

Line 3. “ ”

- Name : 25.

Actors:

Description:

- use case

가

Type: Optional

Cross-References : System functions: R7.1.1

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
1.	2.
3.	
4.	5.
	6.
	7. DB
	8.

Alternative Courses

Exception Course

Line 4.

Line 5.

Line 5. ()

- Name : 26.

Actors: , ,

Description:

- use case 가 On-Line

Type: Optional

Cross-References

System functions: R7.1.2

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
1.	2. DB 3.

Alternative Courses

Exception Course

- Name : 27.

Actors:

Description:

- use case 가

Type: Optional

Cross-References : System functions: R7.1.3

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
1.	2.
3.	
4.	
	5. DB
	6.
	7.
8.	
9.	
	10.
	11. DB
	update
	12.

Alternative Courses

Exception Course

Line 4.

Line 6. 가

Line 9.

Line 10.

Line 10. ()

● Name : 28.

Actors:

Description:

- use case 가

Type: Optional

Cross-References : System functions: R7.1.4

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
--------------	-----------------

1.	2.
3.	5.
4.	6. DB
	7.
	8. DB
	9.

Alternative Courses

Exception Course

Line 4.

Line 5.

Line 7. 가

● Name : 29.

Actors: ,

Description:

- use case

Type: Optional

Cross-References : System functions: R7.2.1

Use Case:

Preconditions : 가 .

Typical Course of Event

Actor Action	System Response
1.	2.
3.	
4.	
	5.
	6.
	7. DB

	8.
--	----

Alternative Courses

Exception Course

Line 4.

Line 5.

Line 5. ()

- Name : 30.

Actors: , ,

Description:

- use case ,

Type: Optional

Cross-References : System functions: R7.2.2

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
1.	2. DB 3.

Alternative Courses

Exception Course

- Name : 31.

Actors: ,

Description:

- use case ,

Type: Optional and Frill

Cross-References : System functions: R7.2.3

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
--------------	-----------------

1.	2.
3.	
4.	
	5.
	6. DB
	7.
	8.
9.	10.
	11. DB
	update
	12.

Alternative Courses

Exception Course

Line 5.

Line 7. 가

Line 8.

Line 8.

Line 8. ()

● Name : 32.

Actors: ,

Description:

- use case ,

Type: Optional

Cross-References : System functions: R7.2.4

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
1.	2.

3.	
4.	
	5.
	6. DB
	7.
	8. DB
	9.

Alternative Courses

Exception Course

Line 5.

Line 7. 가

● Name : 33.

Actors: ,

Description:

- use case , ,

Type: Optional

Cross-References: System functions: R7.2.5

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
1.	
	2.
3.	
4.	
	5.
	6. DB
	7.

Alternative Courses

Exception Course

Line 4.

Line 5.

Line 6.

Line 6. ()

● Name : 34.

Actors: none

Description:

- 가 .
- (,) .
- , .

Type: Primary

Cross-References

System functions: R6.1, R8

Use Case:

Preconditions:

Typical Course of Event

Actor Action	System Response
	1. . 2. . 3. DB . 4. . 5. .

Alternative Courses

Exception Course

Line 5.

Line 6. 가 16 .

Line 6. 5 ,

..

Line 6. 가 .

● Name: 35.

Actors : none

Description :

- .

Type: Primary

Cross-References : System functions: R2.2, R2.3, R2.4, R8, R9

Use Case:

Preconditions :

Typical Course of Event

Actor Action	System Response
	1. DB 가 . 2. DB 가 . 3. (“ ” ” ” ” ”) 4. DB 5.

Activity 2033. Refine Conceptual Model

Using Concept Category List

Concept Category	Domain Class
Physical or tangible objects	, ,
Specifications, designs, or descriptions of things	, , , , , , , , , , ,
Places	
Transactions	가, , , , , , , ,
Roles of people	, ,
Containers of other things	
Things in a container	, , , , ,
organizations	

Using Noun Phrases

				가	

Assign class name into a concept

Draw a conceptual class diagram

Identify and add associations

Use 'Association Category List'

Association Category	Association
A is known/logged/recorded/reported/captured in B	-
A is related to a transaction of B	- - -
A is an organization submit of B	- - -

: String e - mail : String : String : String : String

<<Business Object>>
: String : String

<<Business Object>>
: String : String

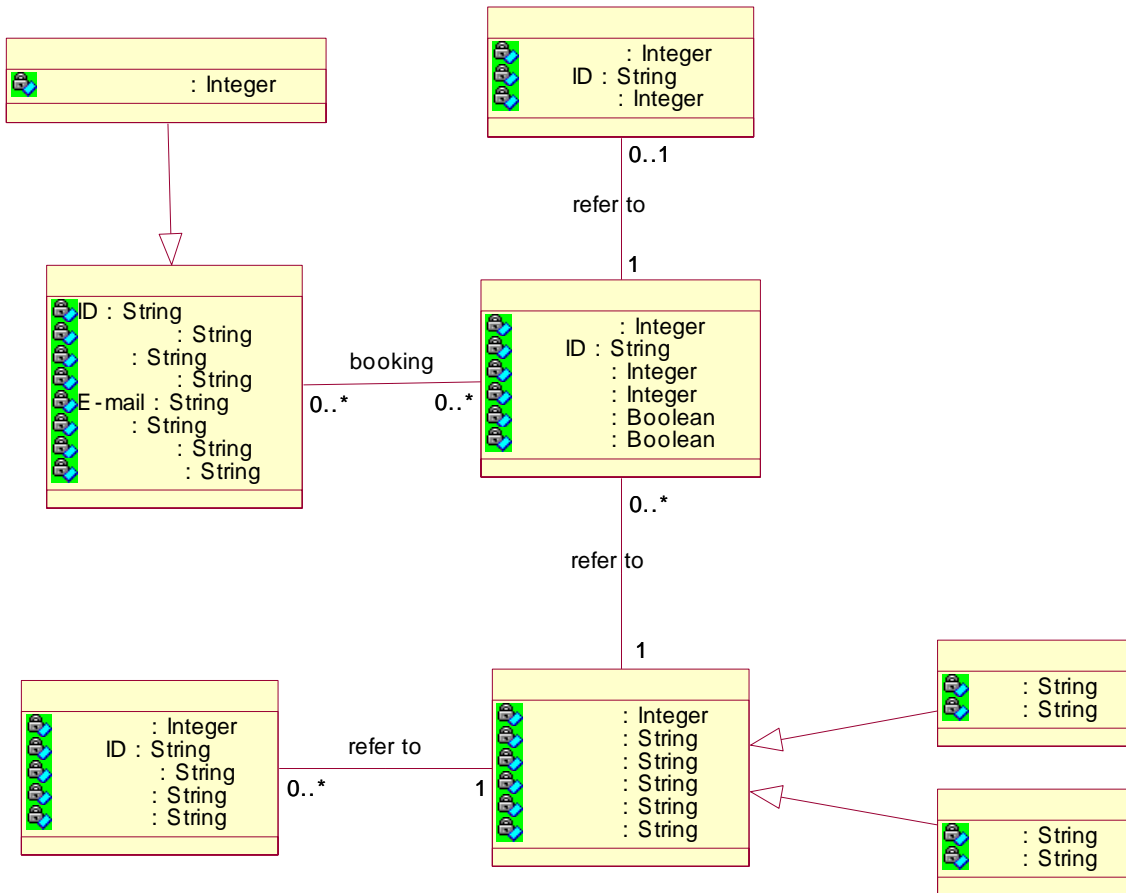
<<Business Object>>
: Integer

: String : String : String

<<Business Object>>
: Integer ID : String : Integer : Integer : String : Boolean : Boolean

<<Business Object>>
: Integer ID : String : Integer

<<Business Object>>
: Integer ID : String : String : String : String



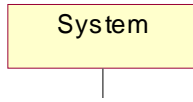
Activity 2034. Refine Glossary

Term	Category	Remarks
	Class	OO 가 , 가
	Class	.
	Class	.
	Class	OO .
	Class	.
	Class	.
	Class	가 .
. ID	Attribute	ID.
.	Attribute	.
.	Attribute	.
.	Attribute	.

. E - mail	Attribute	E - mail.
.	Attribute	.
.	Attribute	.
.	Attribute	(, , ,)
.	Attribute	.
.	Attribute	.
.	Attribute	.
.	Attribute	.
.	Attribute	.
.	Attribute	.
.	Attribute	.
.	Attribute	가
.	Attribute	가
.	Attribute	가
.	Attribute	.
. ID	Attribute	ID.
.	Attribute	.
.	Attribute	.
.	Attribute	.
.	Attribute	.
.	Attribute	.
. ID	Attribute	ID.
.	Attribute	.
.	Attribute	.
. ID	Attribute	ID.
.	Attribute	.
. ID	Attribute	ID.
.	Attribute	(,)
.	Attribute	.
.	Attribute	.
.	Attribute	.

Activity 2035. Refine System Sequence Diagram

Step 1.

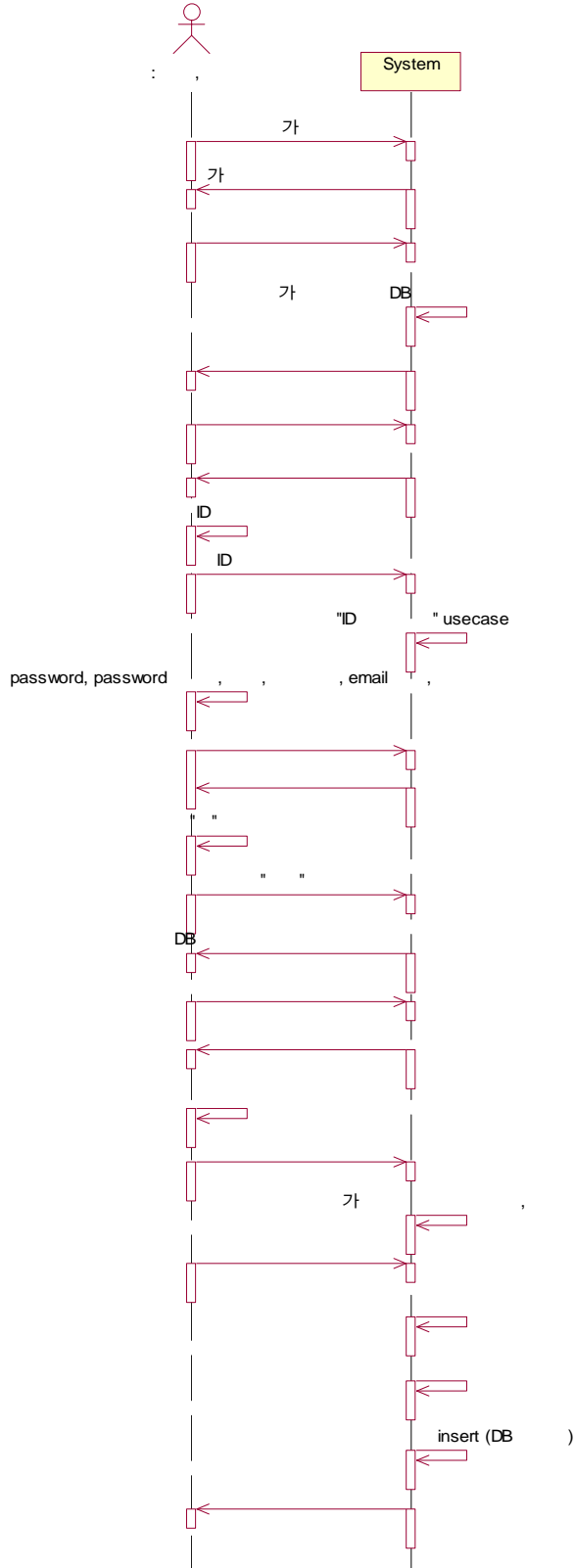


Step 2.

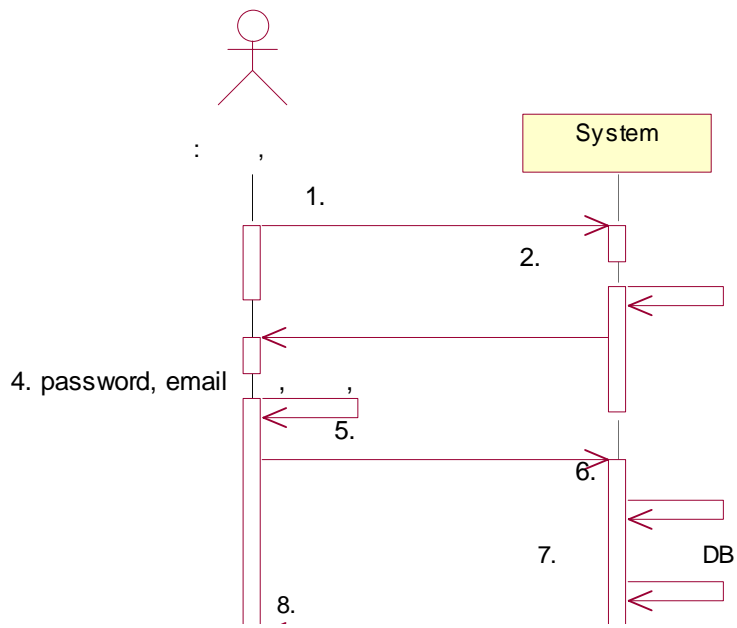


Step3.

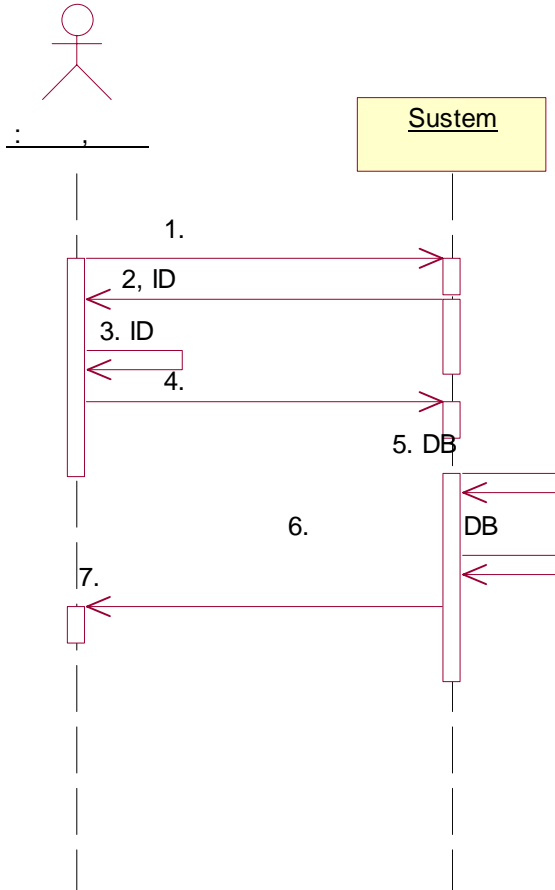
1. 가



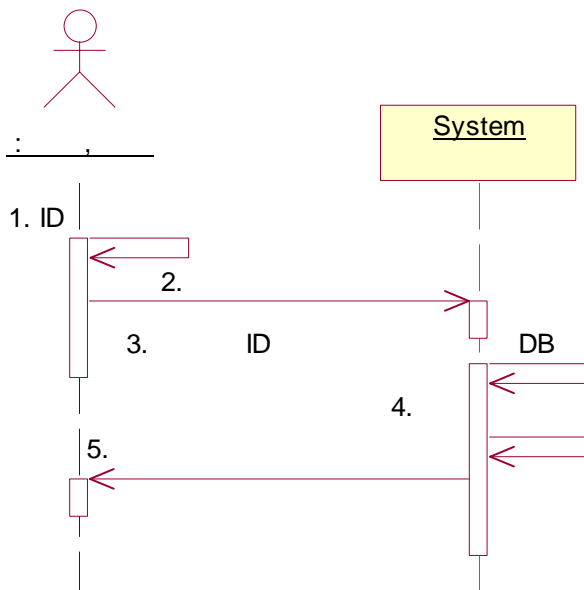
3.



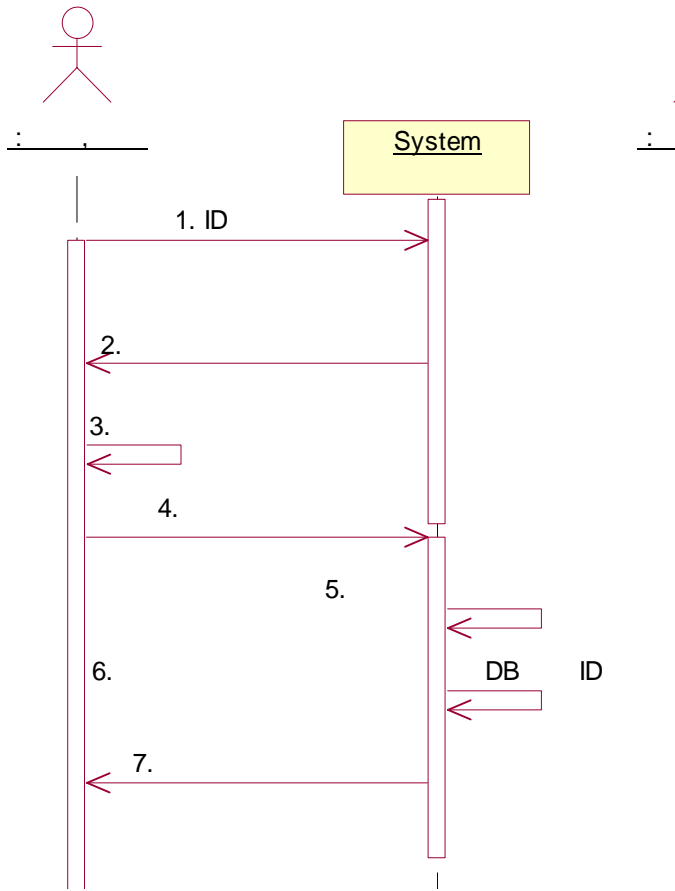
4.



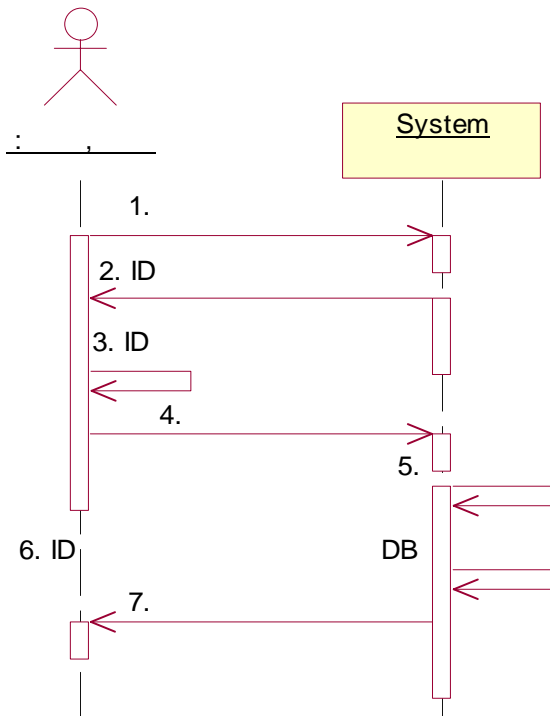
5.



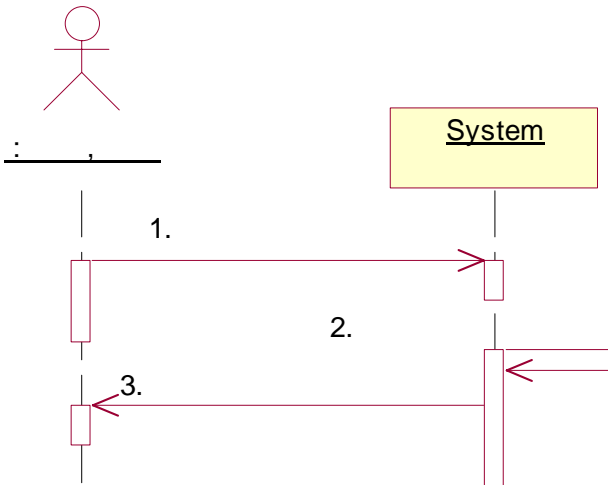
6. ID



7.

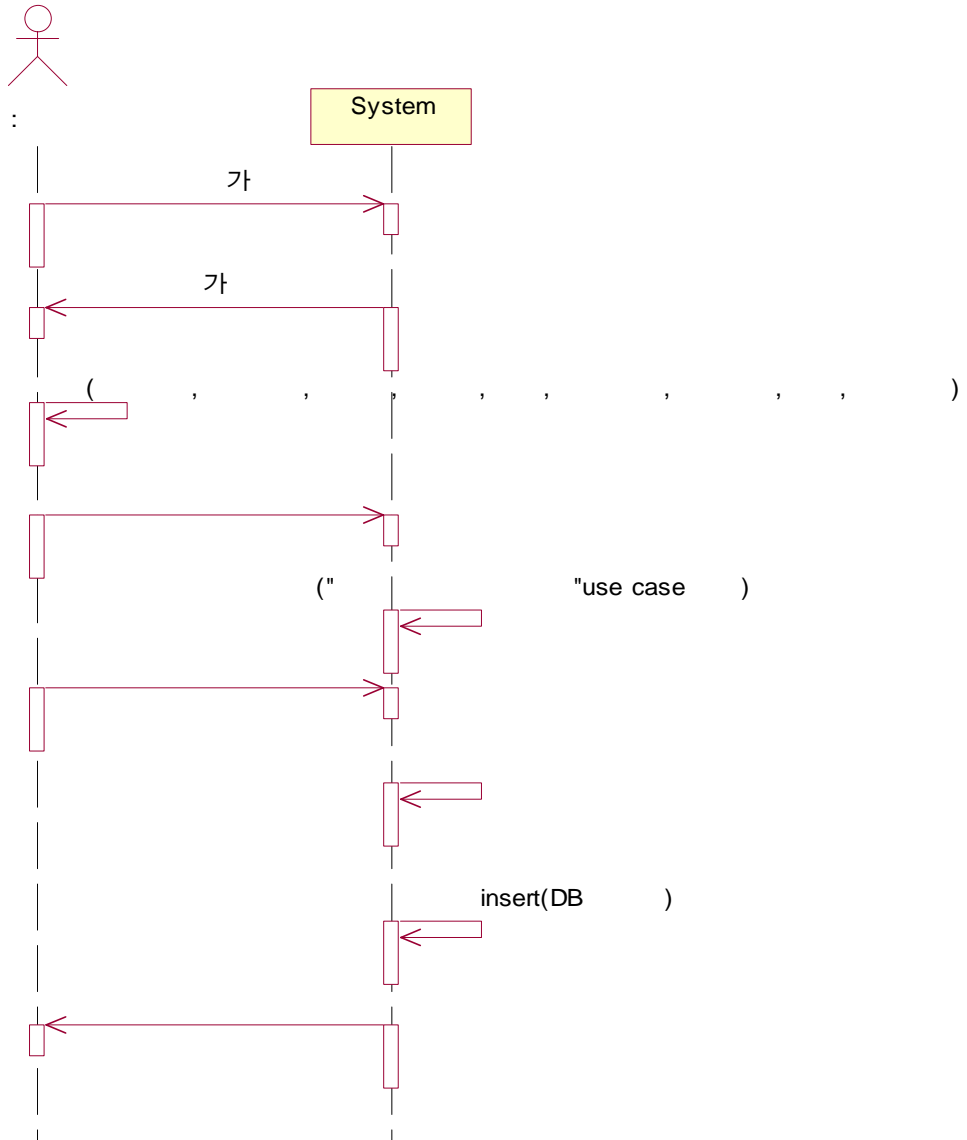


8.

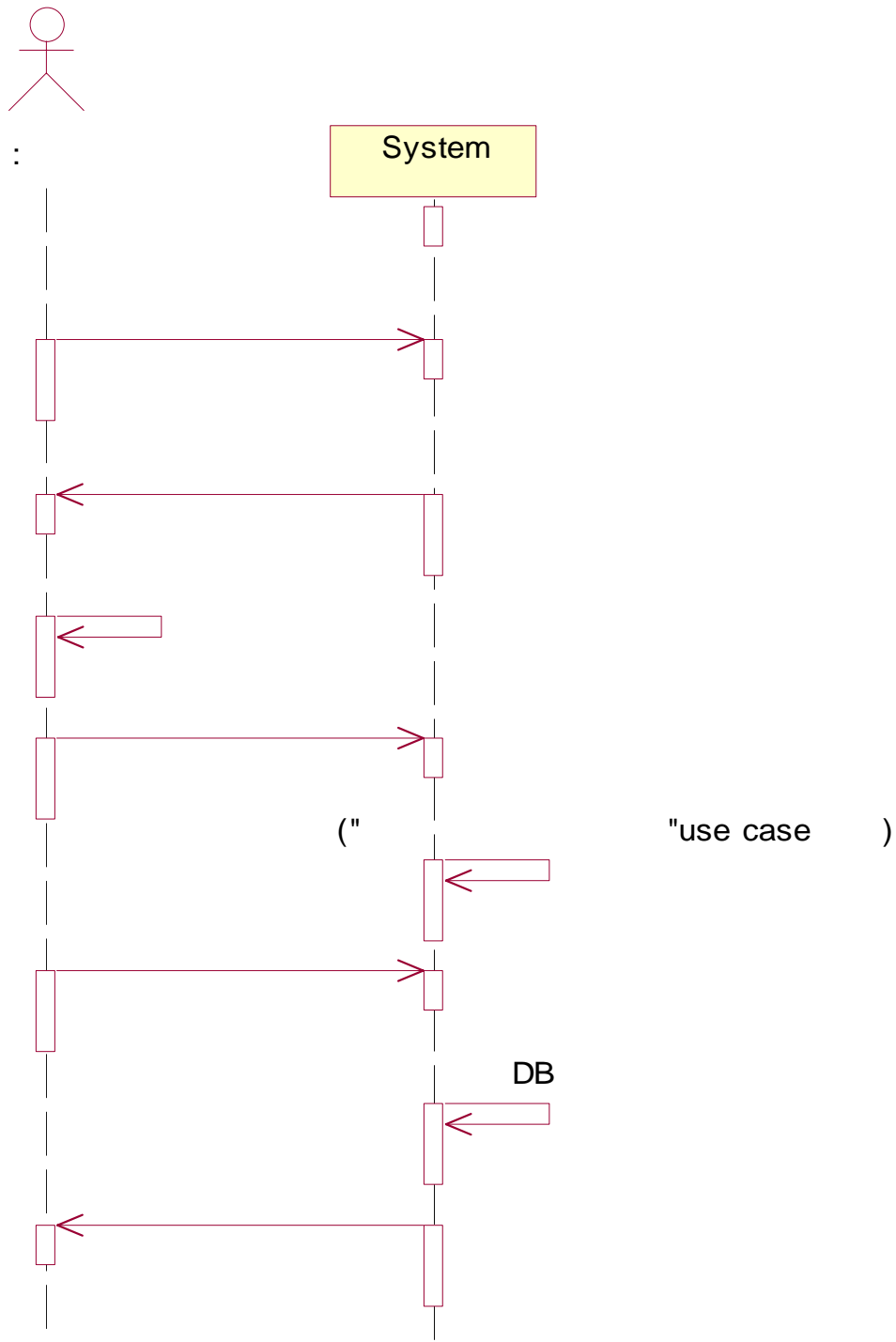


9.

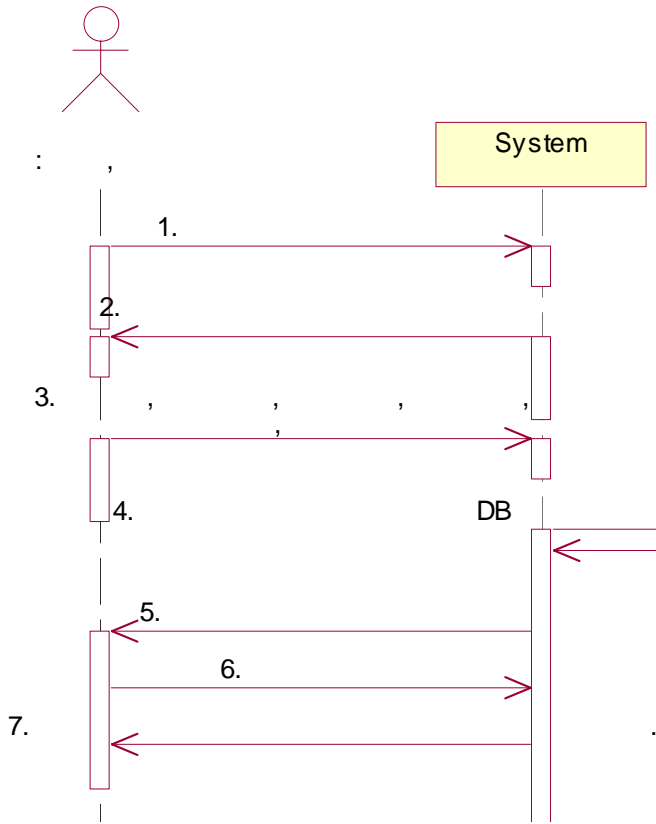
가



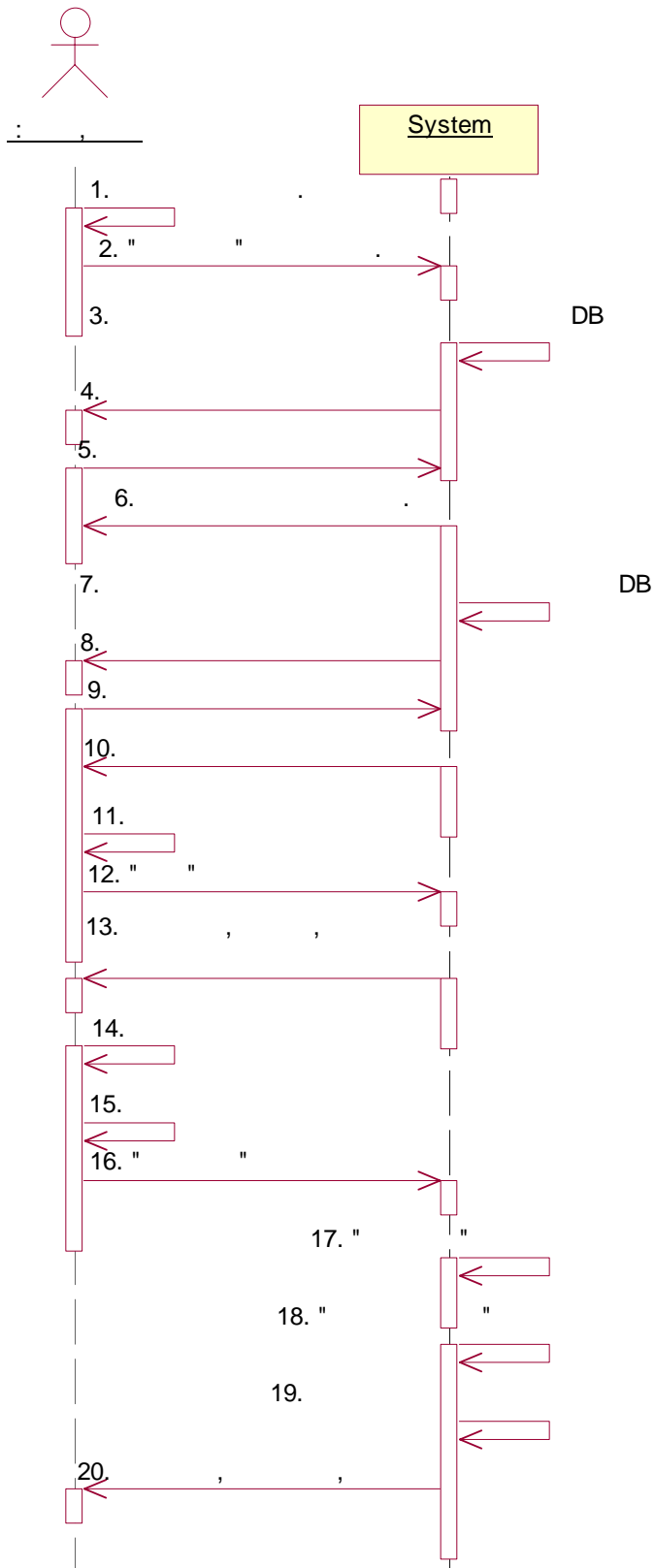
10.



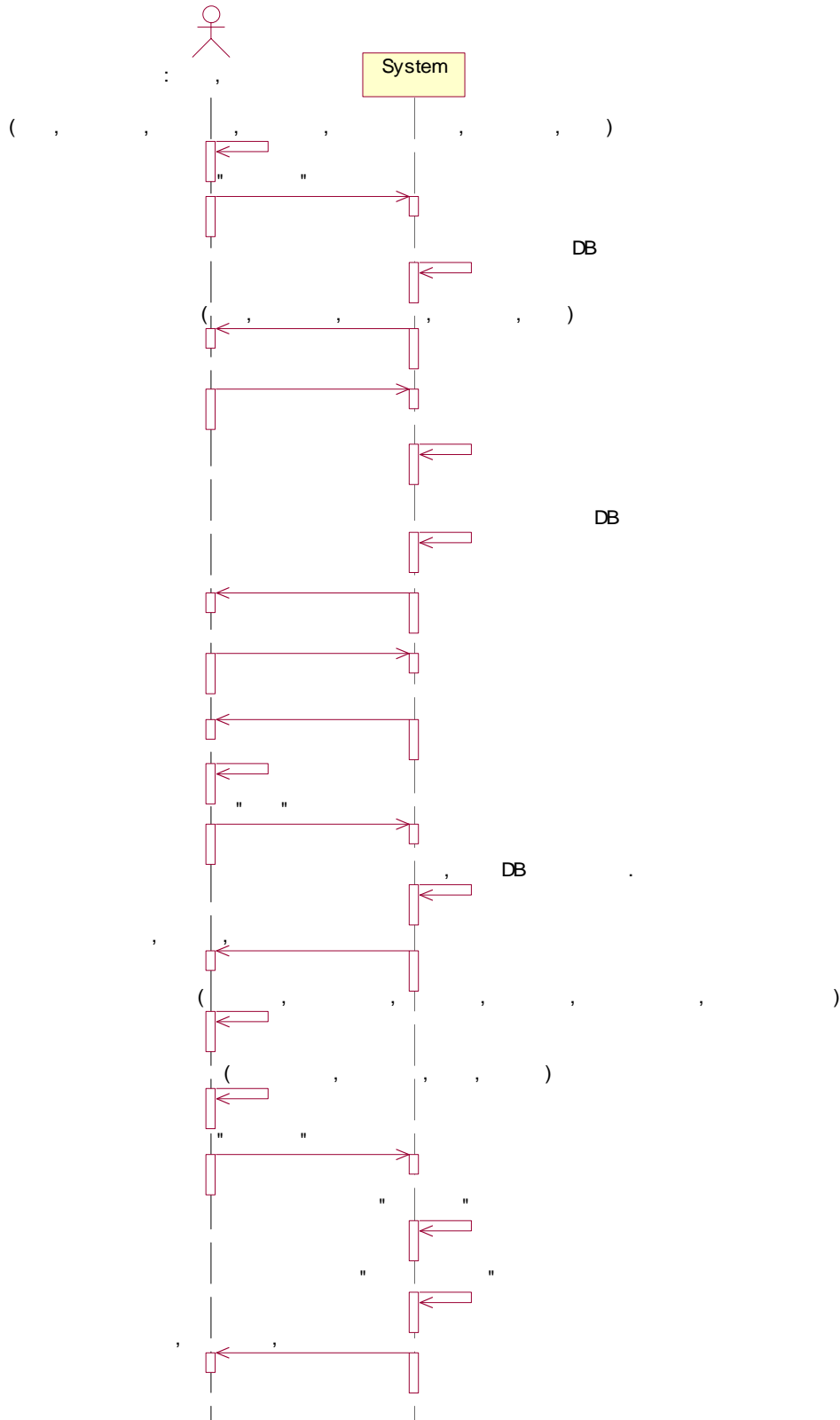
11.



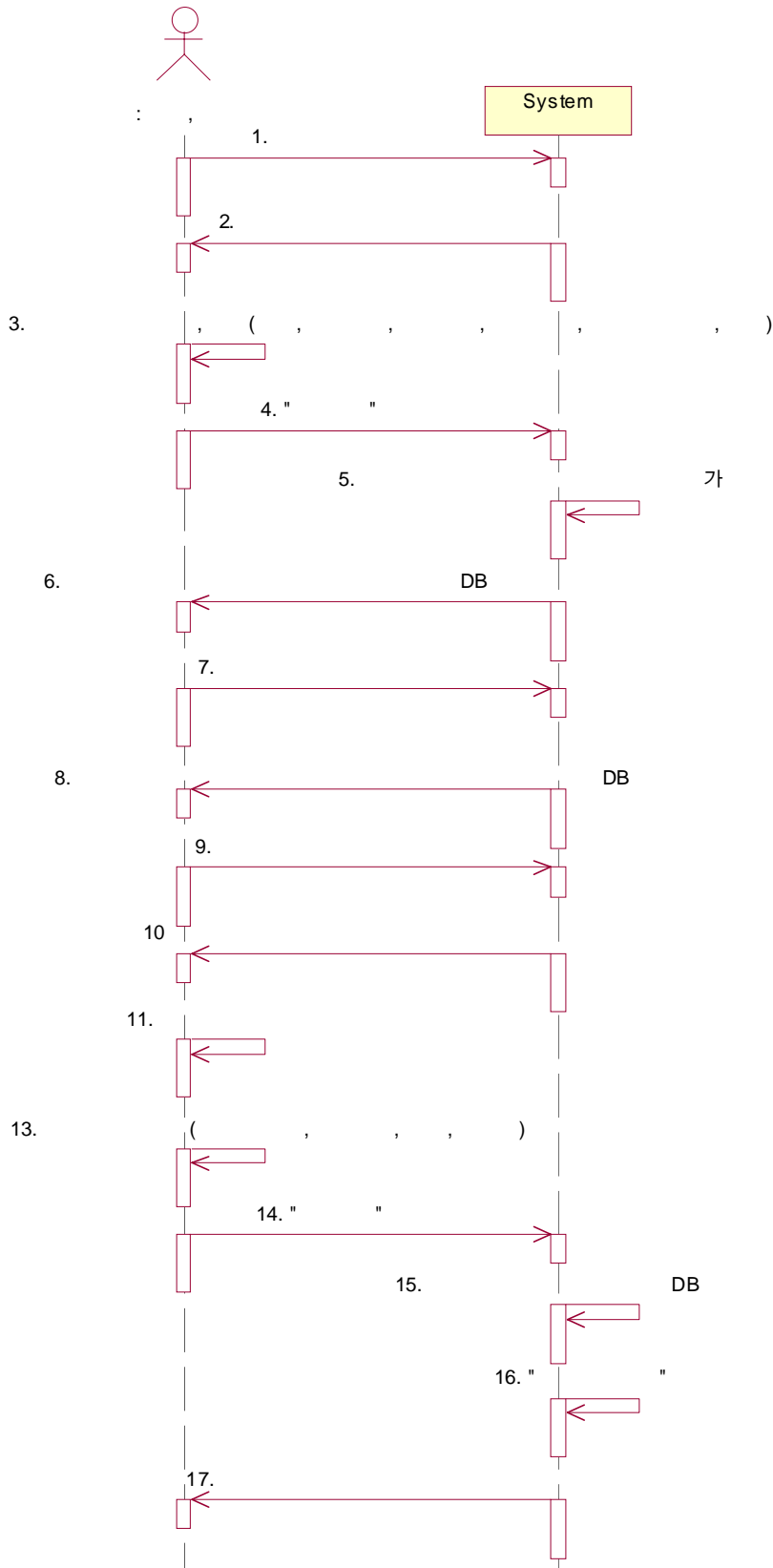
13.



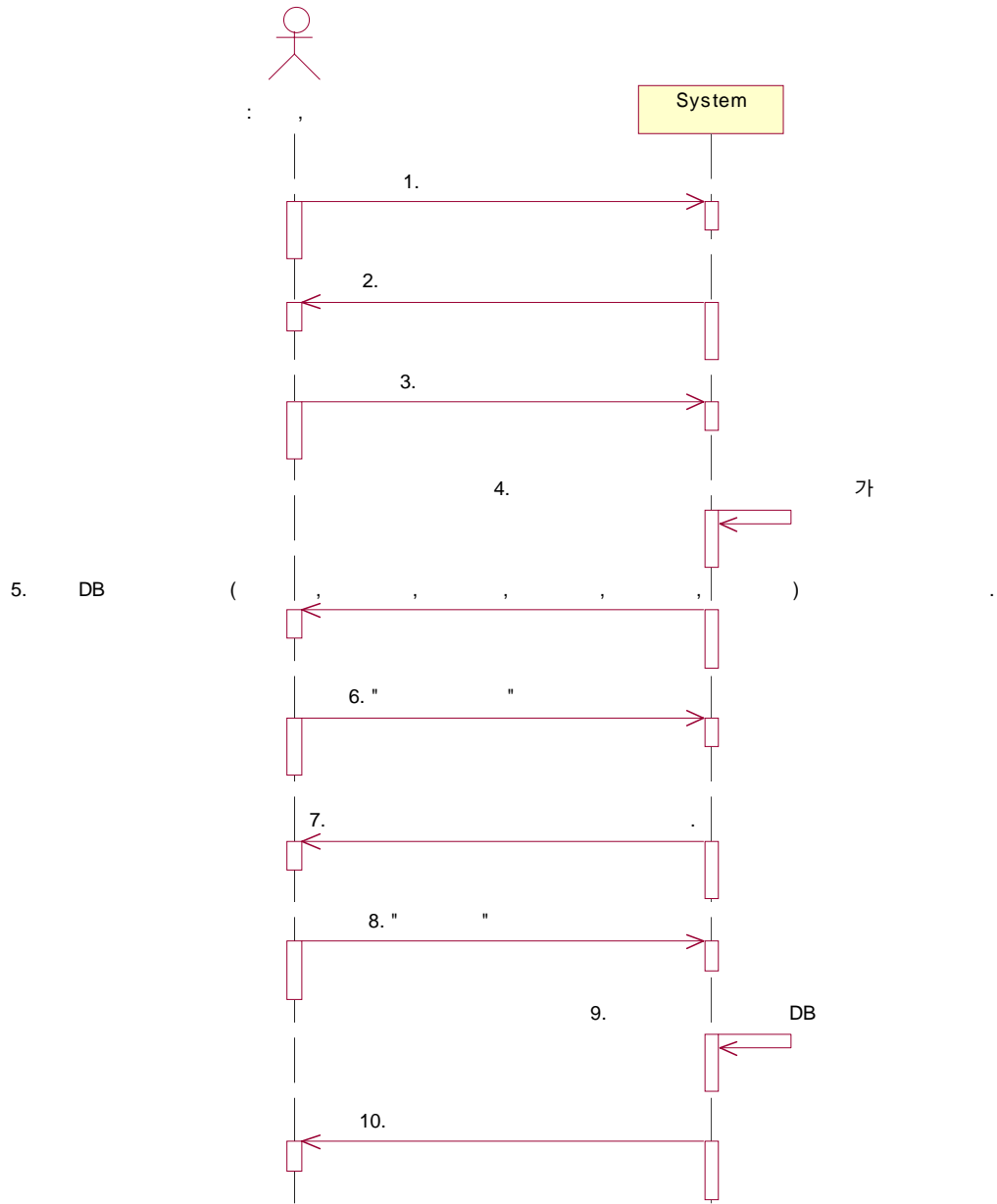
14.



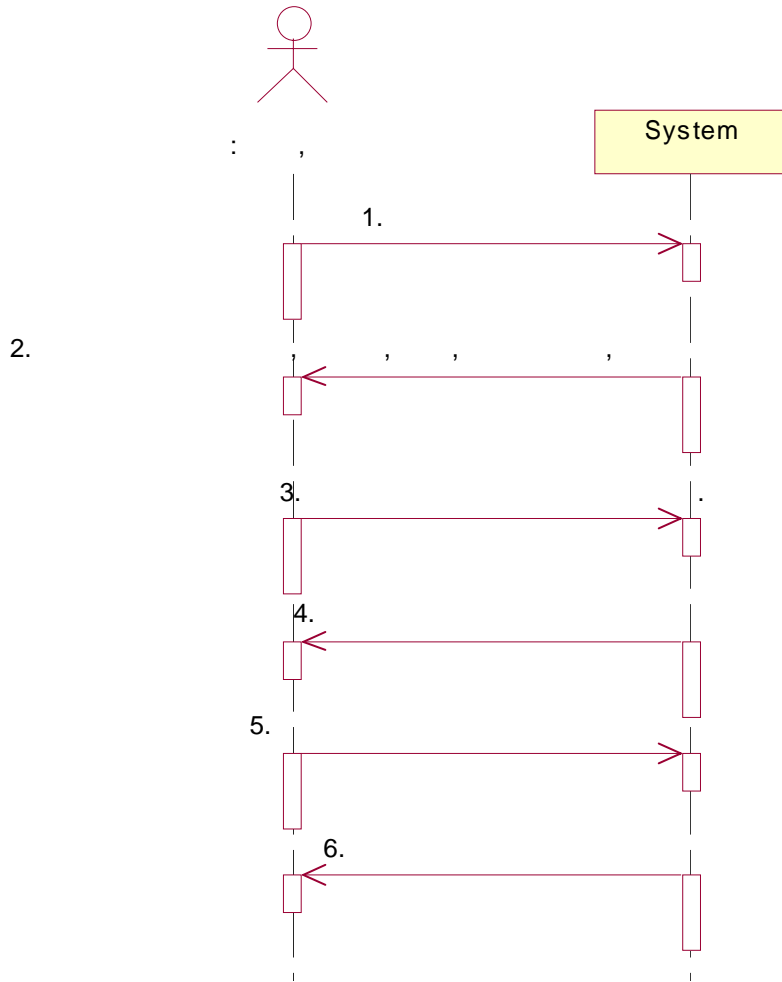
15.



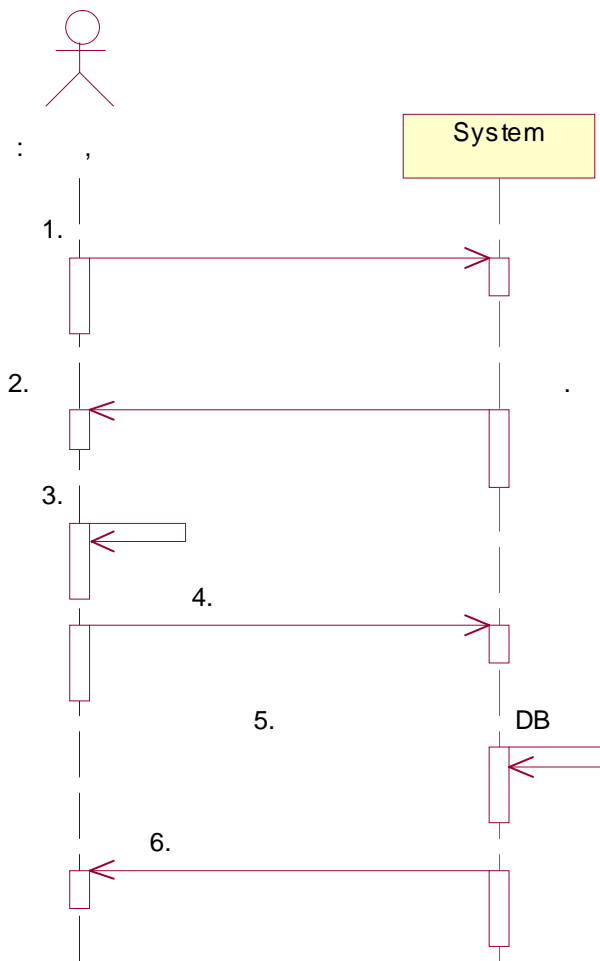
16.



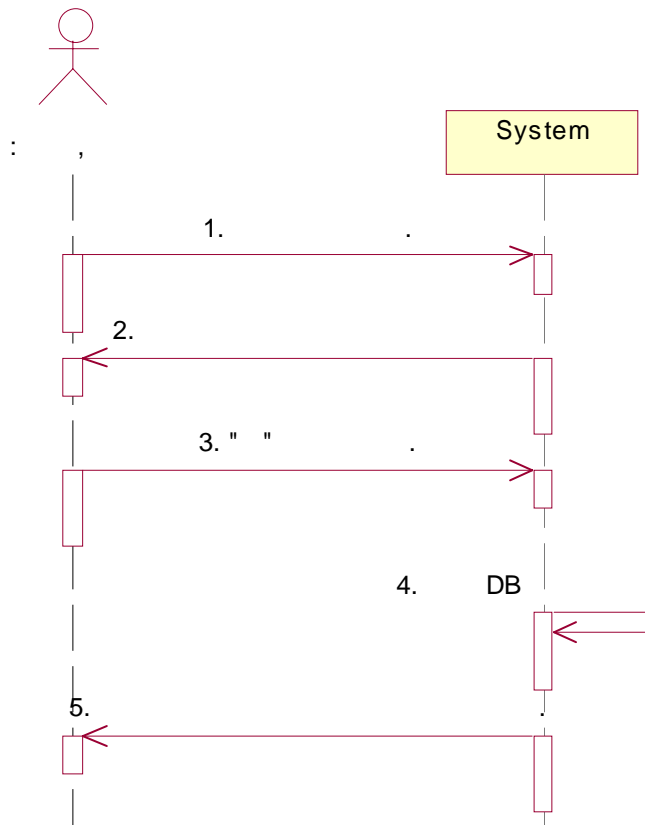
17.



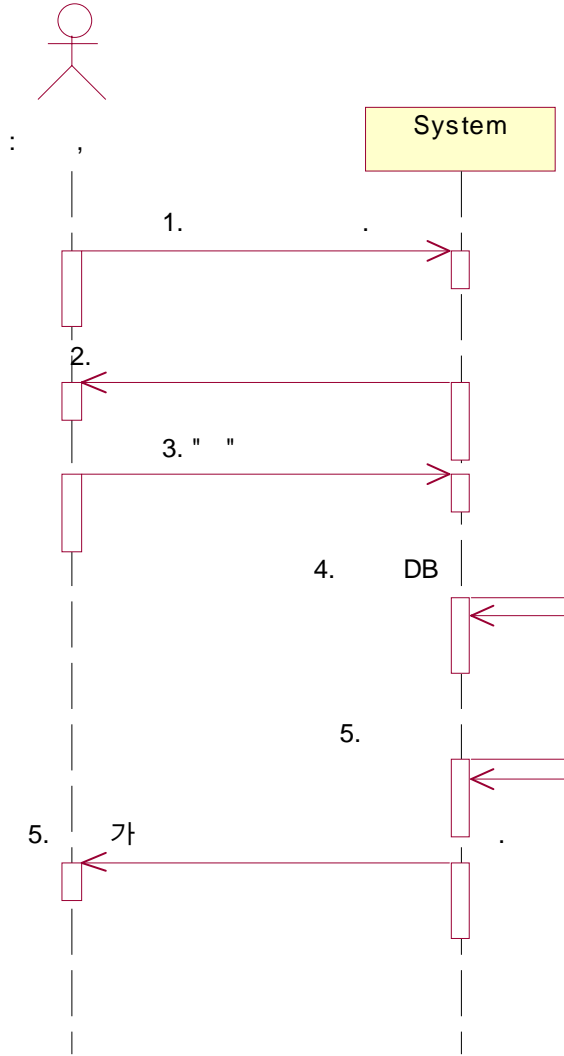
18.



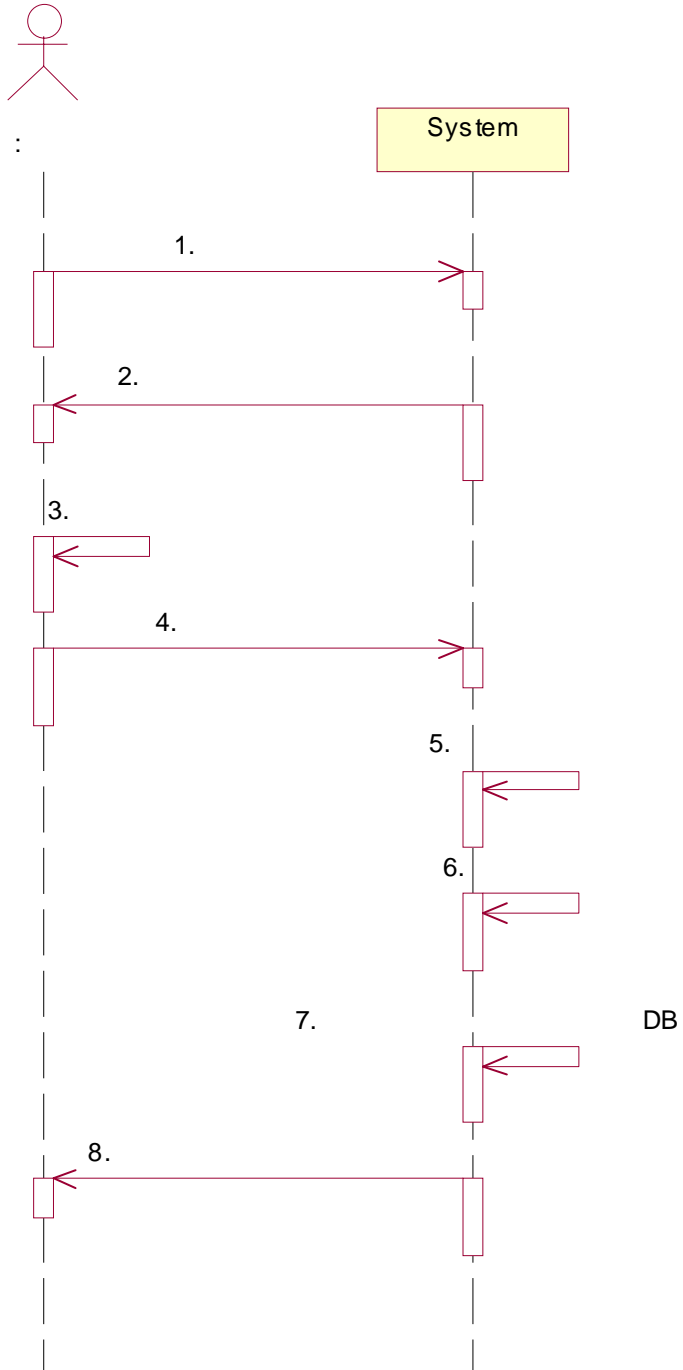
19.



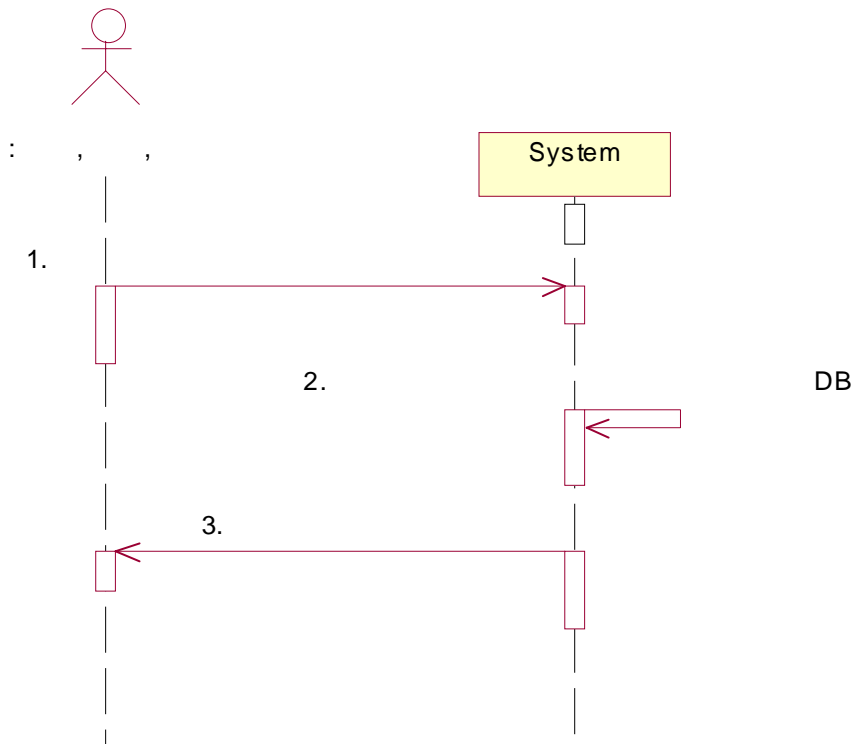
20.



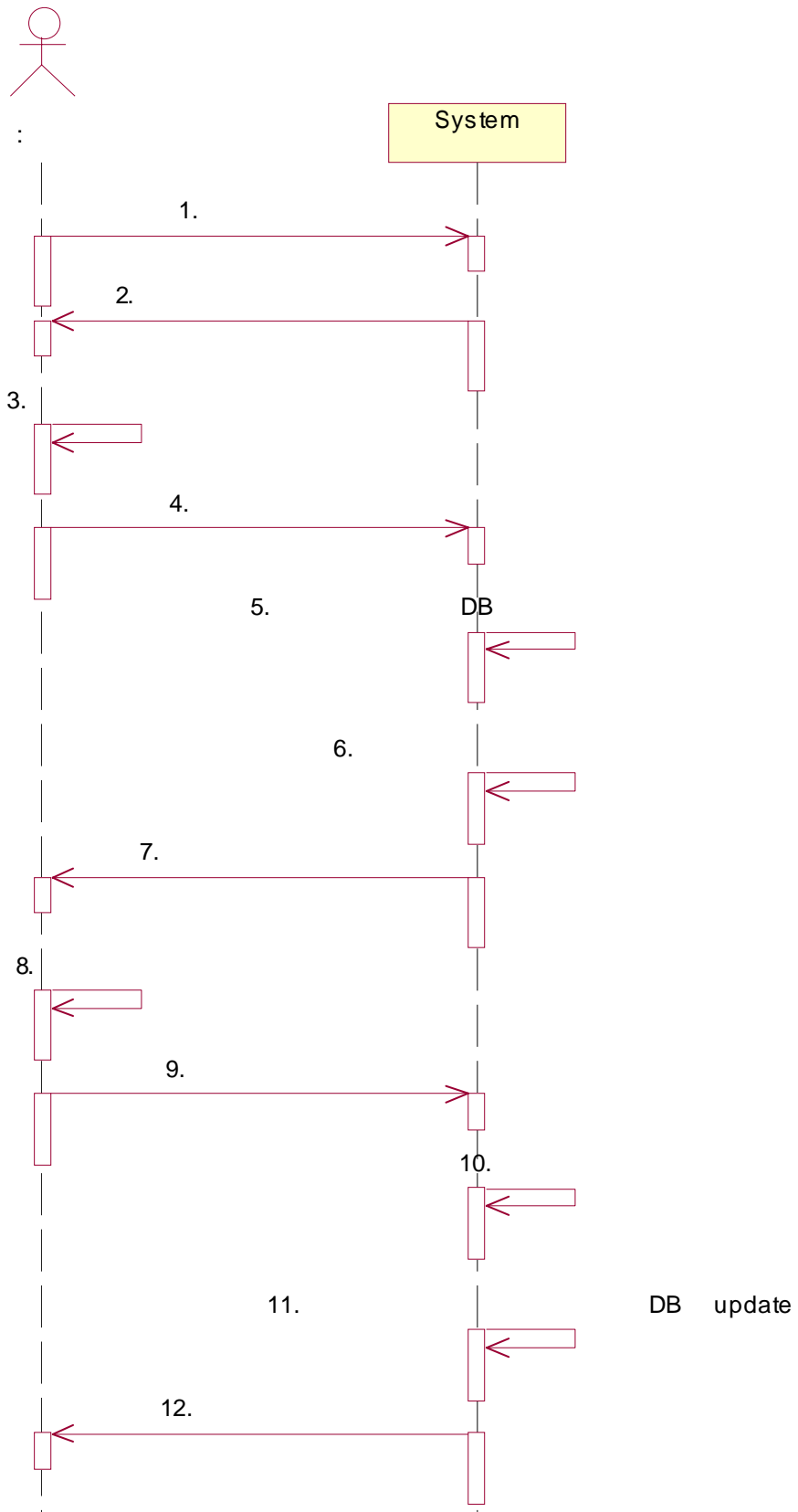
21.



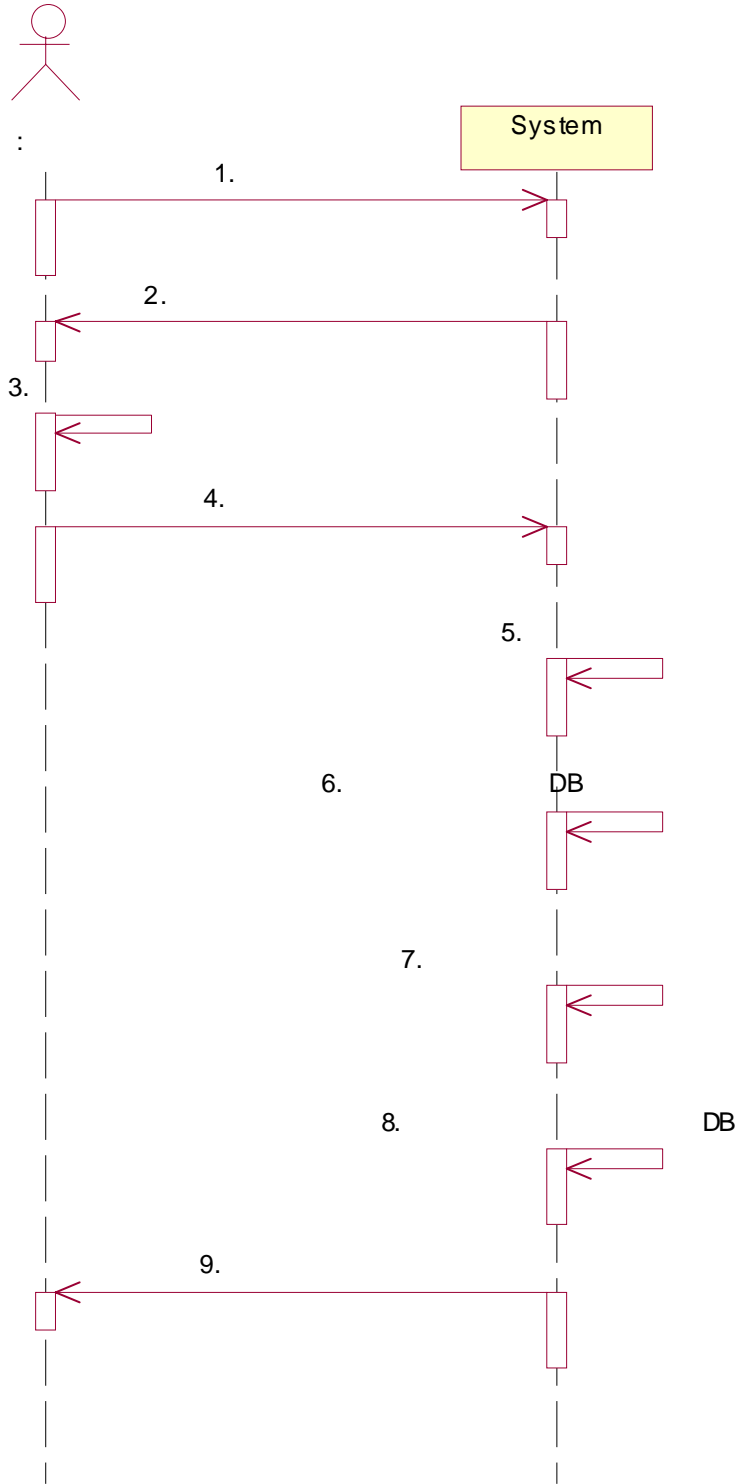
22.



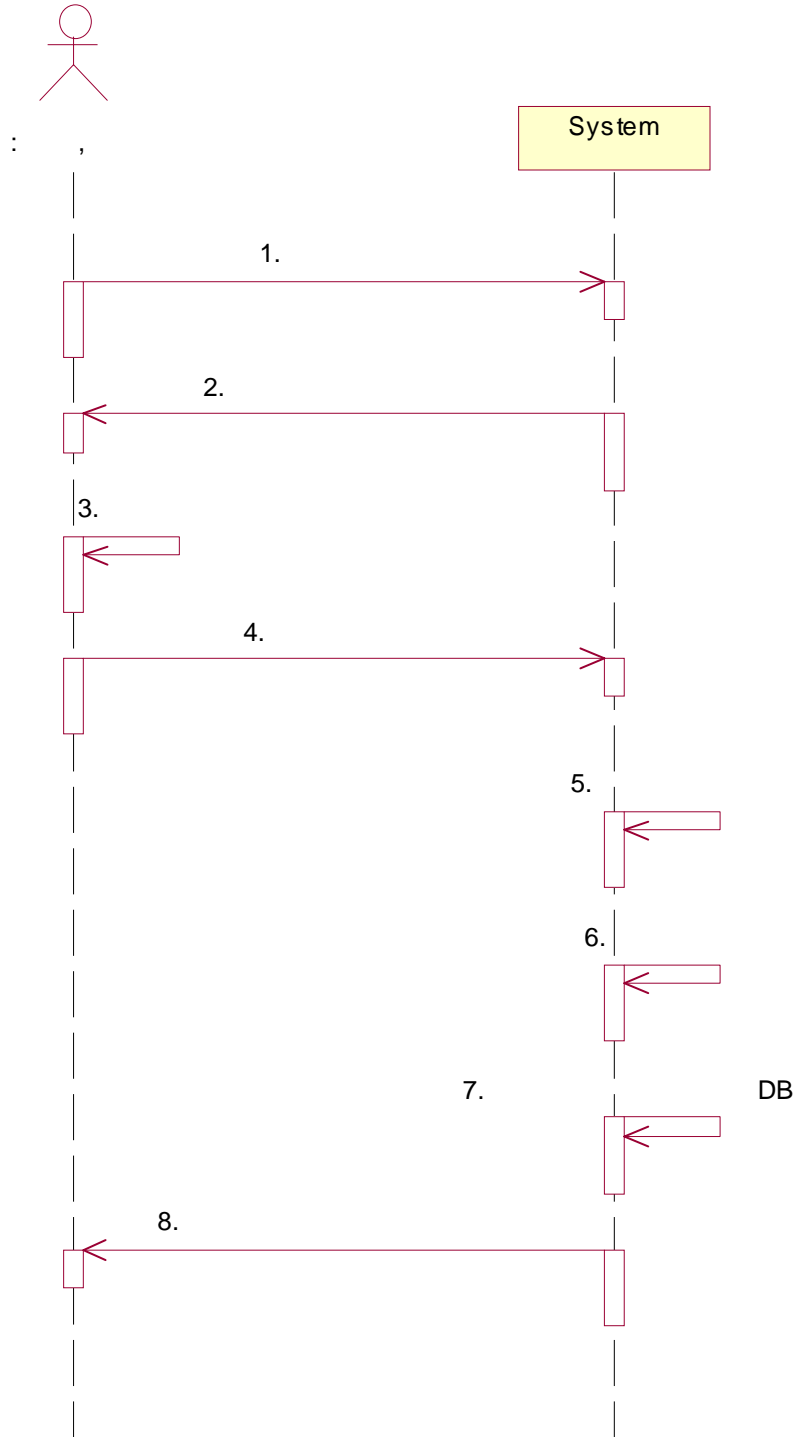
23.



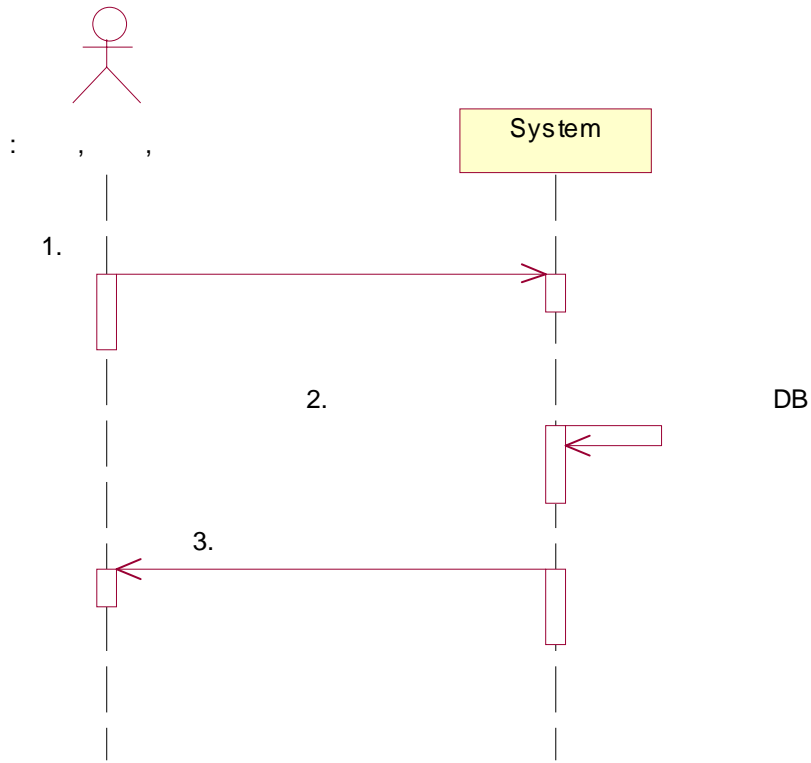
24.



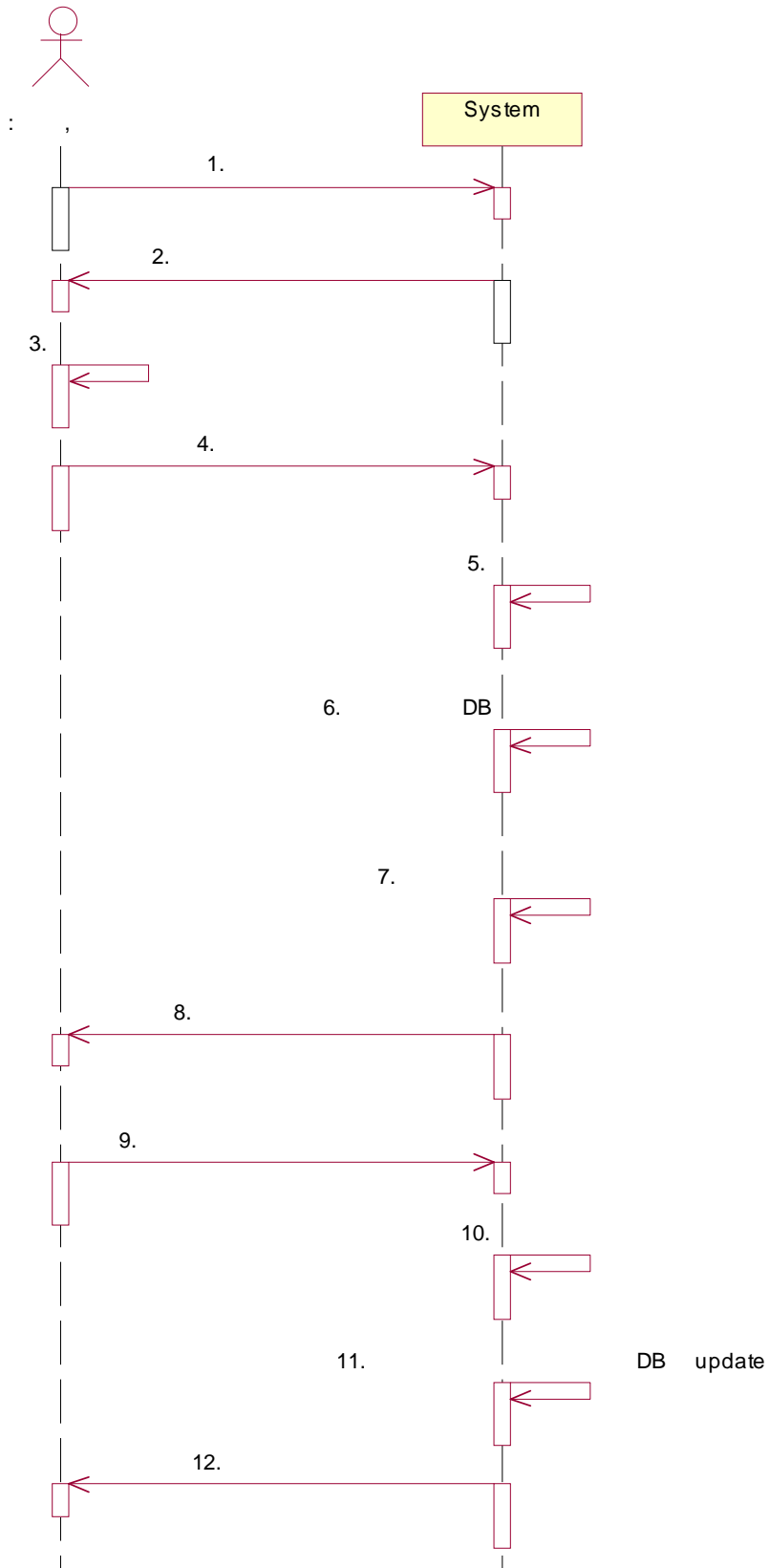
25.



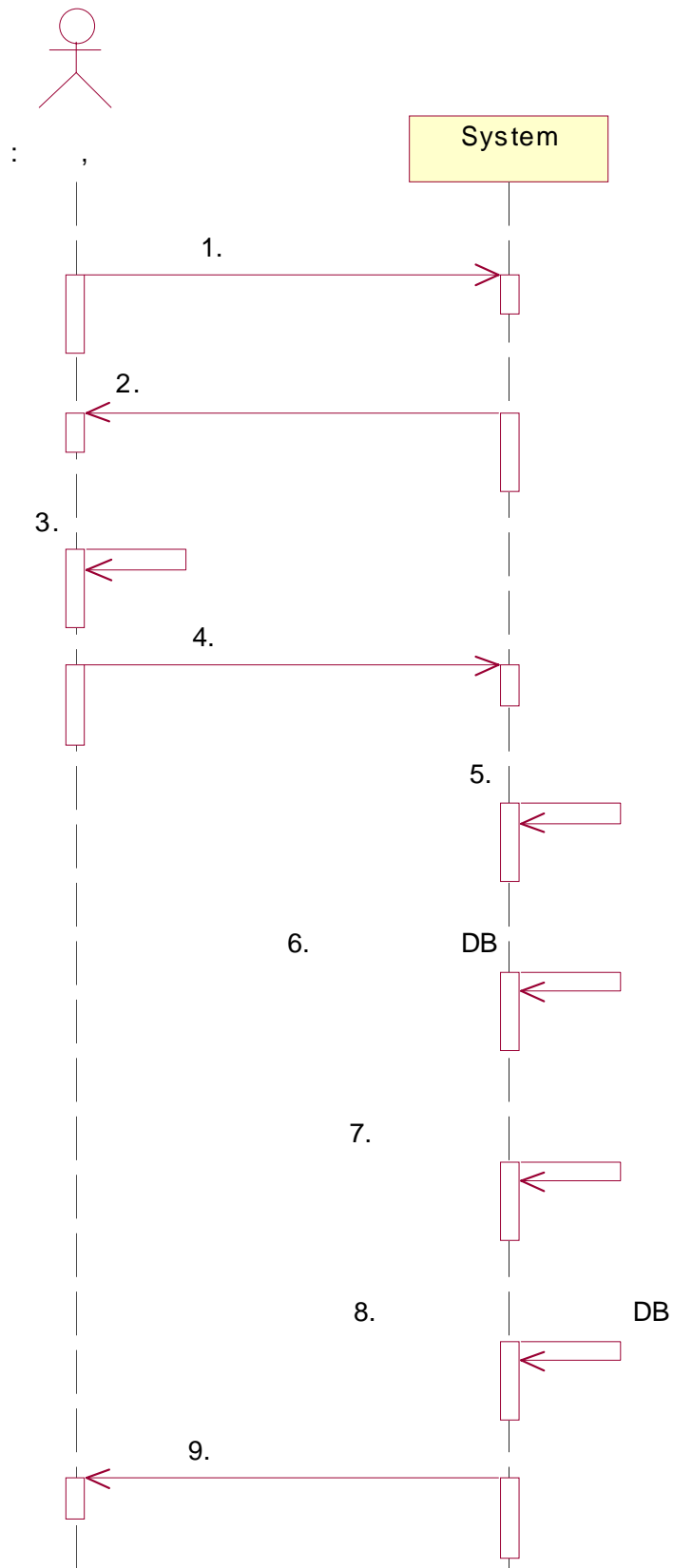
26.



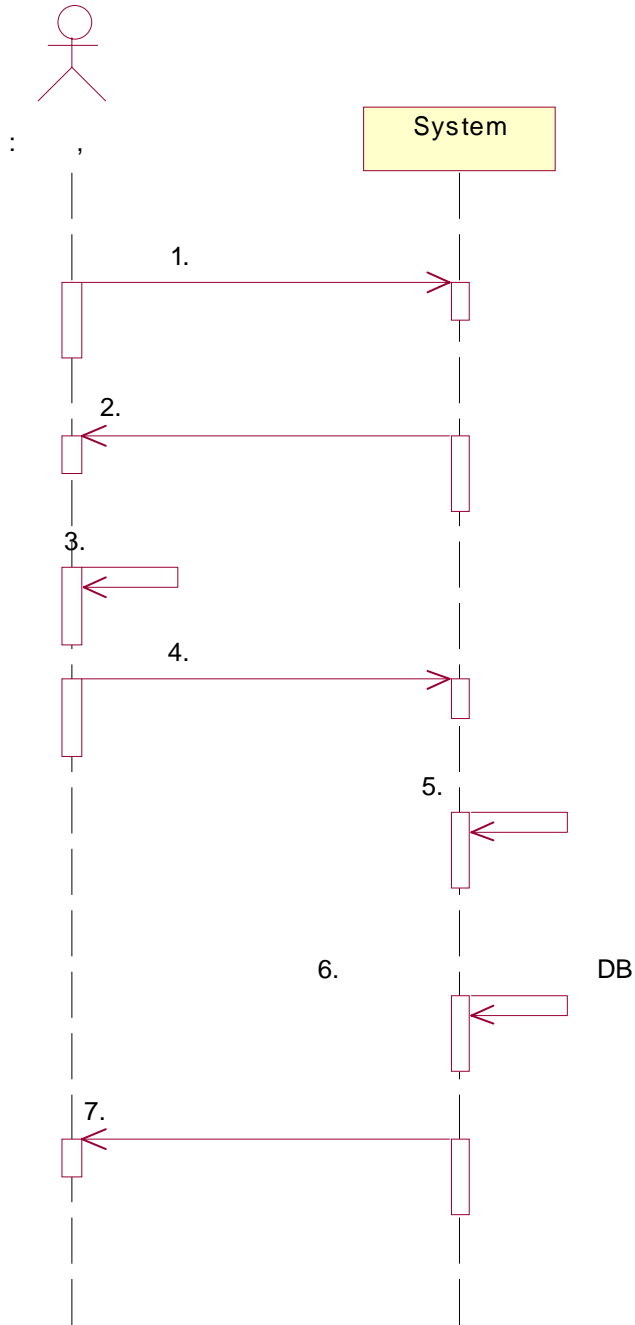
27.



28.



29.



Activity 2036. Define Operation Contracts

Name : 가 ()

Responsibility : 가 , 가 , 가

Type : System

Cross-reference:

System functions: R1.1.1, R1.1.2

Use Case: ID

Exception: 가 ID

가

Notes :

Output : 가

Pre-conditions : 가

Post-conditions : 가

.ID가 ID

. 가

. 가

.e-mail e-mail

. 가

. 가

가 DB

Name : ID ()

Responsibility : 가 , 가 ID가 ID

Type : System

Cross-reference:

System functions: R1.1.1, R1.1.2

Use Case: 가

Exception:

Notes :

Output : 가

Pre-conditions : 가

Post-conditions :

Name : ()

Responsibility : 가

Type :System

Cross-reference:

System functions: R 1.1.1, R1.3

Use Case: 가 ,

Exception:

Notes :

Output :

Pre-conditions : 가

Post-conditions : 가

Name : ()

Responsibility : DB

Type :System

Cross-reference:

System functions: R1.2

Use Case:

Exception: 가

Notes :

Output :

Pre-conditions : 가

Post-conditions : 가 DB

.ID가 ID

. 가

. 가

.e-mail e-mail

. 가

. 가

Name : ()

Responsibility : ID

Exception: 가 5 upgrade .

Notes :

Output :

Pre - conditions : 가 .

Post - conditions : DB .

Name : ()

Responsibility : 50 가
upgrade .

Type : System

Cross - reference:

System functions: R2.3

Use Case:

Exception: 가 50 upgrade .

Notes :

Output :

Pre - conditions : 가 .

가 .

Post - conditions : DB .

Name : ()

Responsibility : 100 가
upgrade .

Type : System

Cross - reference:

System functions: R2.4

Use Case:

Exception: 가 100 upgrade .

Notes :

Output :

Pre - conditions : 가 .

가 .

Post - conditions : DB .

Name : ()

Responsibility : ID DB ID . Session

Type : System

Cross-reference:

System functions: R3.1.1, R3.1.2, R3.1.3

Use Case: ID ,

Exception:

Notes :

Output :

Pre-conditions : 가

Post-conditions :

Name : ID ()

Responsibility : ID , ID

DB ID

Type : System

Cross-reference:

System functions: R3.1.1, R3.1.2

Use Case:

Exception: 가

가

Notes :

Output : ID

Pre-conditions : 가

Post-conditions : DB ID

Name : ()

Responsibility : ID

DB

Type : System

Cross-reference:

System functions: R3.1.1, R3.1.3

Use Case:

Exception: 가

Notes :

Output :

Pre-conditions : 가

Post-conditions : DB

Name : ()

Responsibility : session

Type : System

Cross-reference:

System functions: R3.2

Use Case:

Exception:

Notes :

Output :

Pre-conditions :

Post-conditions :

Name : 가()

Responsibility : 가

Type : System

Cross-reference:

System functions: R4.1.1, R4.2.1, R4.3

Use Case: 가, 가,

Exception:

Notes :

Output :

Pre-conditions :

Post-conditions :

가

가

.
. 가
. 가
. 가 DB

Name : ()

Responsibility : DB

DB

Type : System

Cross-reference:

System functions: R4.1.2, R4.2.2

Use Case:

Exception: 가

Notes :

Output :

Pre-conditions :

Post-conditions : 가 DB

. 가
. 가
. 가
. 가
. 가
. 가

Name : ()

Responsibility : 가

, , 가
, , 가

Type : System

Cross-reference:

System functions: R4.1.1, R4.2.1, R4.3

Use Case: 가, 가

Exception :

Notes :

Output : 가

Pre-conditions :

가 가

Post-conditions :

Name : ()

Responsibility : , , , DB

Type : System

Cross-reference:

System functions: R5.1, R5.2

Use Case: ,

Exception:

Notes :

Output :

Pre-conditions : DB

Post-conditions :

Name : ()

Responsibility : 가 ID, DB

Type : System

System functions : R6.1, R8

Use Case:

Notes :

Exceptions :

Output :

Preconditions : 가

Post-conditions :

. 가 .
. 가 .
. ID가 .
. 가 .
. 가 .

Name : ()

Responsibility :

DB

Type : System

System functions: R6.2, R9

Use Case:

Notes :

Exceptions :

Output :

Preconditions :

가

가

Post-conditions :

가

가

가

ID가

ID

“

”

가

Name : ()

Responsibility :

DB

Type : System

System functions: R9

Use Case:

Notes :

Exceptions :

Output :

Preconditions : 가 .

Post-conditions : 가 .

. 가 .

. 가 .

. ID가 ID .

. .

. “ ” .

. 가 .

Name : ()

Responsibility : DB

Type : System

System functions: R4.3.1

Use Case:

Notes :

Exceptions :

Output :

Preconditions :

Post-conditions :

Name : ()

Responsibility : DB , DB

Type : System

System functions: R6.4

Use Case:

Notes :

Exceptions :

Output :

Preconditions :

Post-conditions : DB

“true”

Name : ()
Responsibility : DB
Type : System

Cross-References :
System functions: R6.5
Use Case:

Notes :
Exceptions :
Output :
Pre-conditions :

Post-conditions :

Name : ()
Responsibility : DB
Type : System

Cross-References
System functions: R6.6, R9
Use Case:

Notes :
Exceptions :
Output :
Pre-conditions :

Post-conditions : DB
"false"

Name : ()
Responsibility : DB
Type : System

Cross-References :
System functions: R7.1.1
Use Case:

Notes :

Exceptions : 가
가
가

Output :
Pre - conditions : 가

Post - conditions : DB
가

Name : ()
Responsibility :
Type : System
Cross - References : System functions: R7.1.2
Use Case:

Notes :
Exceptions :
Output :
Pre - conditions :
Post - conditions : DB

Name : ()
Responsibility :
Type : System
System functions: R7.1.3
Use Case:

Notes :
Exceptions : 가
가
가
가

Output :

Pre-conditions :

Post-conditions : DB

Name : ()

Responsibility :

Type : System

System functions: R7.1.4

Use Case:

Notes :

Exceptions : 가
가 가

Output :

Pre-conditions :

Post-conditions : DB ..

Name : ()

Responsibility : , DB

Type : System

Cross-References :

System functions: R7.2.1

Use Case:

Notes :

Exceptions : 가
가 가

Output :

Pre-conditions : 가

Post-conditions : DB

.
. 가 .

Name : ()

Responsibility : , .

Type : System

Cross-References : System functions: R7.2.2

Use Case:

Notes :

Exceptions :

Output : .

Pre-conditions : .

Post-conditions : DB .

Name : ()

Responsibility : , .

Type : System

System functions: R7.2.3

Use Case:

Notes :

Exceptions : 가
가 가
가
가
가

Output : .

Pre-conditions : .

Post-conditions : DB .

Name : ()

Responsibility : , .

Type : System

System functions: R6.1, R8

Use Case:

Notes :

Exceptions : 5 ,

Output :

Pre - conditions : .

Post - conditions : .

“true” .

Name : ()

Responsibility : , .

Type : System

System functions: R2.2, R2.3, R2.4, R6.4, R8, R9

Use Case: , , ,

Notes :

Exceptions :

Output : DB .

Pre - conditions : .

Post - conditions : , .