Case Study:

Generic pharm a wants an online application to keep track of medicine produced, MR and their clients. It is known that an MR can market for multiple medicines whereas the same medicine can be marketed by the multiple MR

A client can provide multiple orders through the web interface but they can communicate with a single MR. The payments for any order is received by cash on delivery. The client can make payment in installment for any particular order:

The manager wants report but not limited to

1. List of all the orders that are still pending
2. List of those clients who haven't made any order since specified date
3. List of those medicines that are ordered most frequently
4. List of those medicines that generated maximum profit.
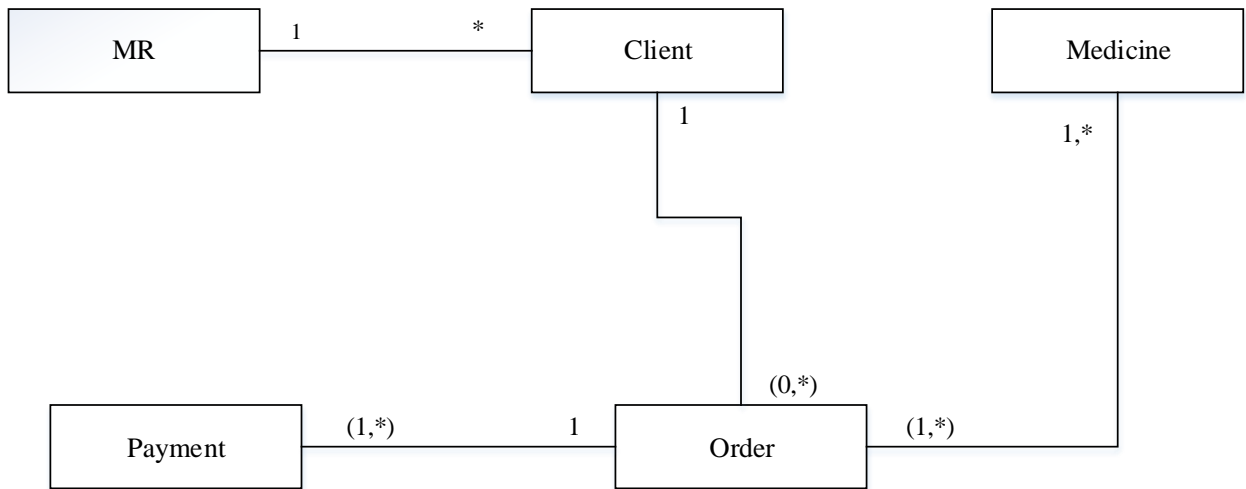
Domain Object model:

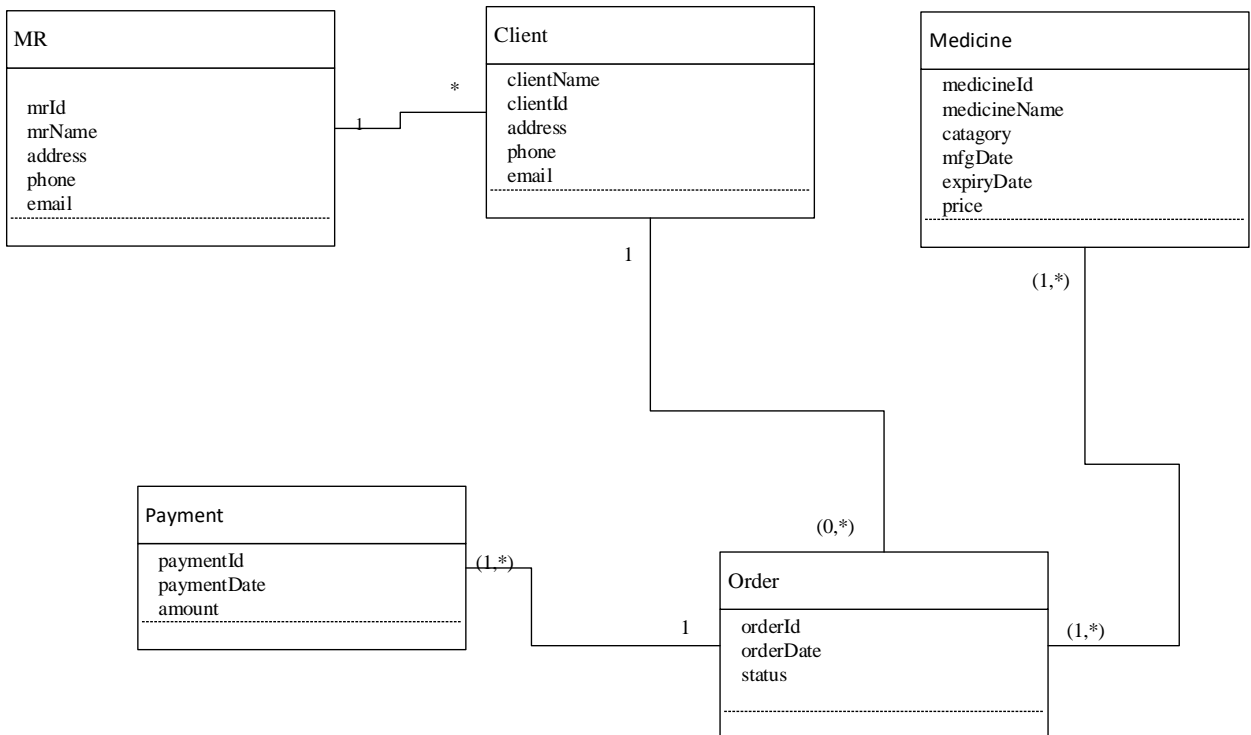Fig1:Domain Model

Conceptual Domain model:
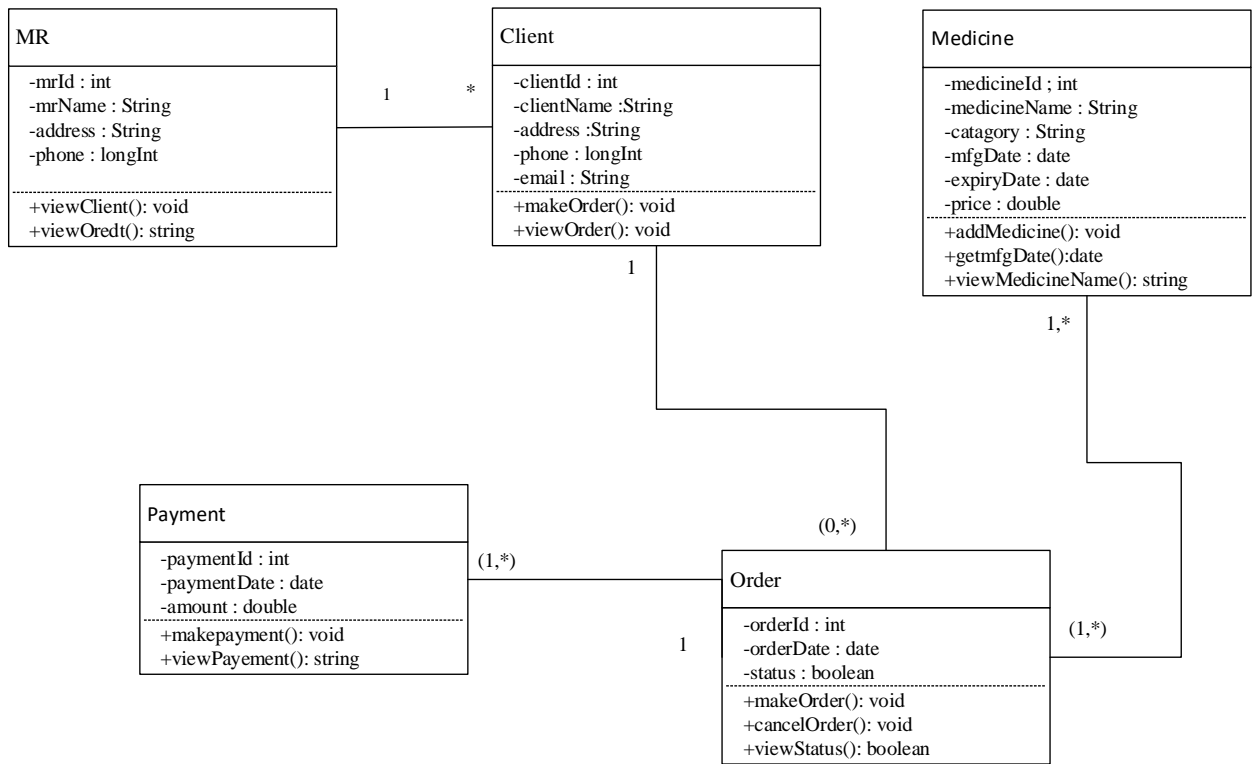

Fig 2:Conceptual Model

Descriptive Class Diagram

MR

- -mrId : int
- -mrName : String
- -address : String
- -phone : longInt

- +viewClient(): void
- +viewOredt(): string

Client

- -clientId : int
- -clientName :String
- -address :String
- -phone : longInt
- -email : String
- +makeOrder(): void
- +viewOrder(): void

1   *

Medicine

- -medicineId ; int
- -medicineName : String
- -catagory : String
- -mfgDate : date
- -expiryDate : date
- -price : double
- +addMedicine(): void
- +getmfgDate():date
- +viewMedicineName(): string

1

1,*

Payment

- -paymentId : int
- -paymentDate : date
- -amount : double
- +makepayment(): void
- +viewPayement(): string

(1,*)   (0,*)

Order

- -orderId : int
- -orderDate : date
- -status : boolean
- +makeOrder(): void
- +cancelOrder(): void
- +viewStatus(): boolean

1   (1,*)

Fig3:Descriptive class Diagram

Use Case Diagram
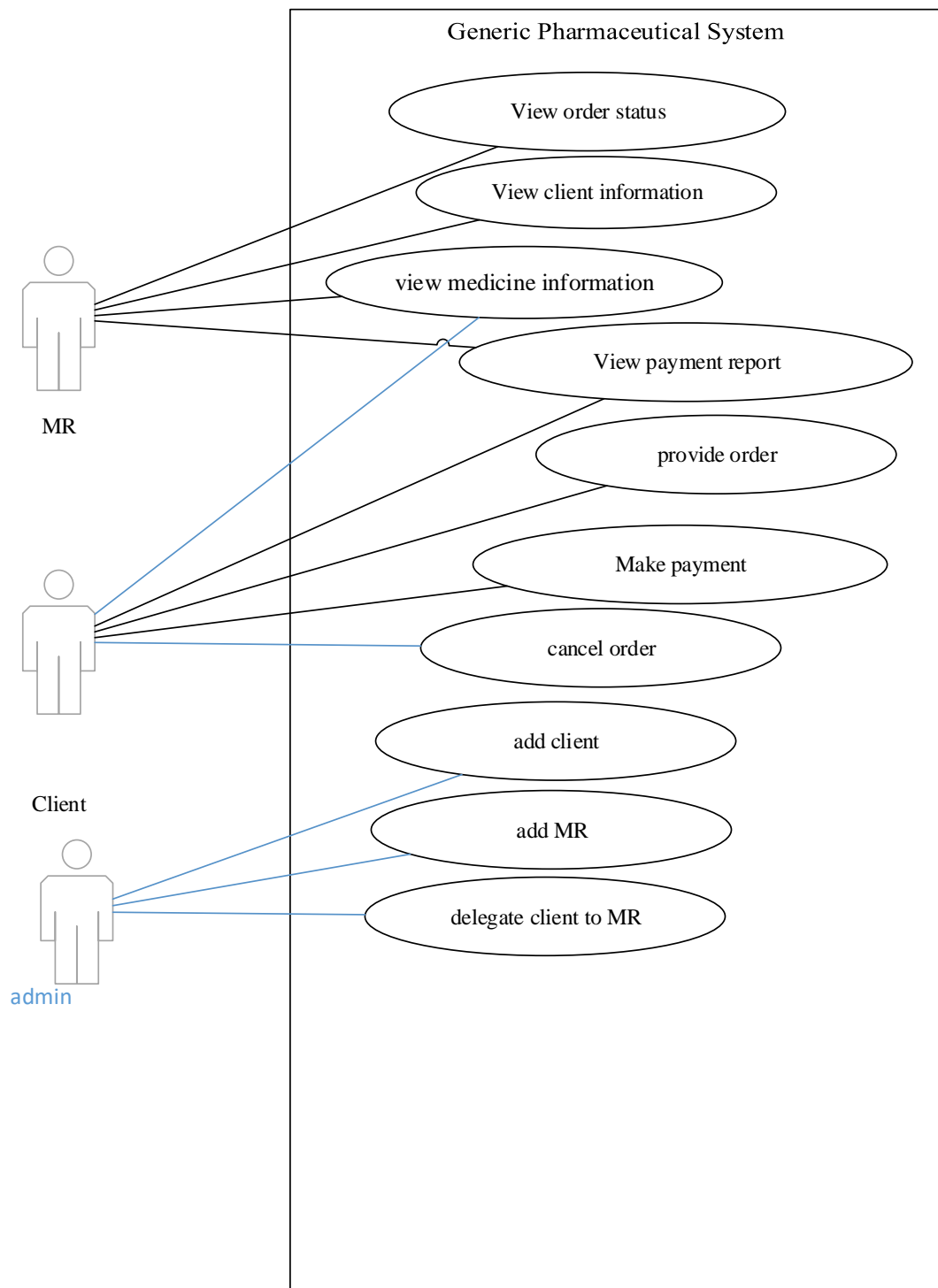
fig4:Use Case Diagram

Table 1 View order status

Use Case Identifier	Uc1-View order status
Primary Actor	MR
Secondary actor	NONE
Description:	The status of any order placed by the client is shown
Pre-condition	The client should have placed the order
Post-condition	The order is updated on the system
Success Scenario	The order status can be seen in the system
Failure Scenario	The order status is not properly shown

Table 2 View client information

Use Case Identifier	Uc2-view client information
Primary Actor	MR
Secondary actor	NONE
Description:	The information of the clients are shown here but only of the particular MR delegated client
Pre-condition	The client should be registered
Post-condition	The client information should be seen
Success Scenario	The respective client of particular MR should be seen
Failure Scenario	All the clients information are shown rather than of a particular delegated clients to a MR

Table 3 View medicine information

Use Case Identifier	Uc3-View medicine information
Primary Actor	MR
Secondary actor	Client
Description:	The information about the medicines can be seen
Pre-condition	The medicine should be updated in the database
Post-condition	The medicine must be displayed
Success Scenario	The medicine information can be seen
Failure Scenario	The medicine information cannot be seen

Table 4 View payment report

Use Case Identifier	Uc4- view payment report
Primary Actor	MR
Secondary actor	Client
Description:	The report of the client who has paid the money should be seen
Pre-condition	The payment should be made
Post-condition	The payment report must be generated
Success Scenario	The report of payment is seen
Failure Scenario	The payment report of the clients are not seen in the system

Table 5 Provide order

Use Case Identifier	Uc5-provide order
Primary Actor	Client
Secondary actor	NONE
Description:	The order is provided by the client
Pre-condition	The client should be registered
Post-condition	The order should be seen in the system
Success Scenario	The order status is seen in the system
Failure Scenario	The order provided by the client is not seen

Table 6 make payment

Use Case Identifier	Uc6-make payment
Primary Actor	Client
Secondary actor	NONE
Description:	The payment is done by the client
Pre-condition	The order is successfully passed on
Post-condition	The client must give the money for medicine
Success Scenario	The payment is made
Failure Scenario	The payment is not updated in the database

Table 7 cancel order

Use Case Identifier	Uc7-cancel order
Primary Actor	Client
Secondary actor	NONE
Description:	The order is cancelled by the client which was placed before
Pre-condition	The order was placed before
Post-condition	The order is cancelled
Success Scenario	The order is cancelled successfully
Failure Scenario	The order is not cancelled

Table 8 add client

Use Case Identifier	Uc8 add client
Primary Actor	Admin
Secondary actor	NONE
Description:	The client information is added by the admin
Pre-condition	The client information is valid
Post-condition	The database must be updated
Success Scenario	The client is successfully added
Failure Scenario	The client is not added in the database

Table 9 add MR

Use Case Identifier	Uc9 add MR
Primary Actor	Admin
Secondary actor	NONE
Description:	The MR information is added by the admin
Pre-condition	The Mr information is valid
Post-condition	The database must be updated
Success Scenario	The MR is successfully added
Failure Scenario	The MR is not added in the database

Table 10 delegate client to MR

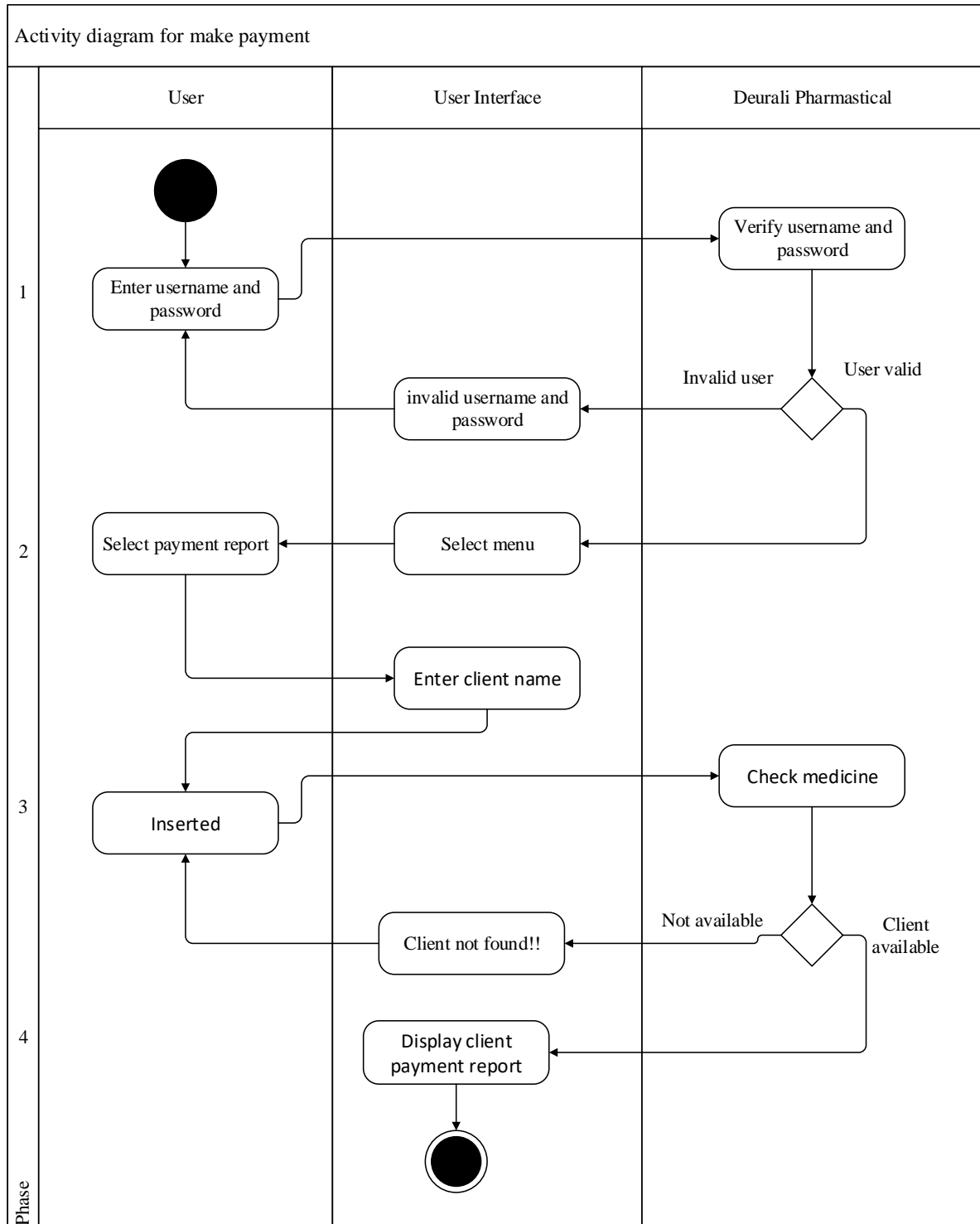| Use Case Identifier	Uc10 delegate client to MR
Primary Actor	Admin
Secondary actor	NONE
Description:	The client is delegated to MR by the admin
Pre-condition	The MR and client information is valid
Post-condition	The database must be updated
Success Scenario	The delegation is successfully added
Failure Scenario	The delegation is not added in the database

Activity Diagram:

Fig:Activity Diagram for make payment

Activity diagram for provide Order

User	User Interface	Deurali Pharmastical

1

● (start)

Enter username and password

Verify username and password

Invalid user / User valid

invalid reenter

2

make selected order ← Select the menu

3

Make medicine order → verify medicine name

Not available / Medicine available

medicine not available

4

Select yes ← Are you sure want to make order?
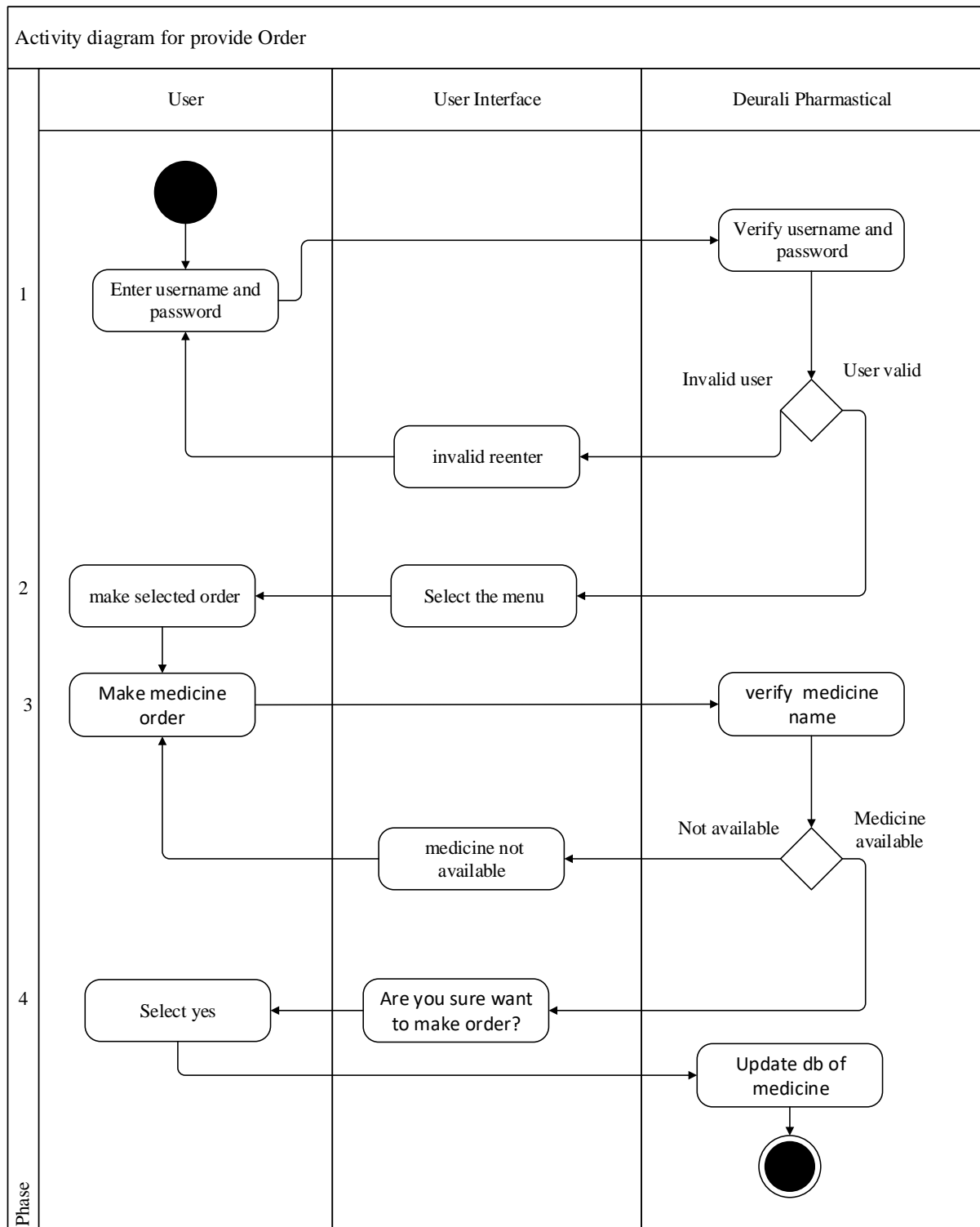
Update db of medicine
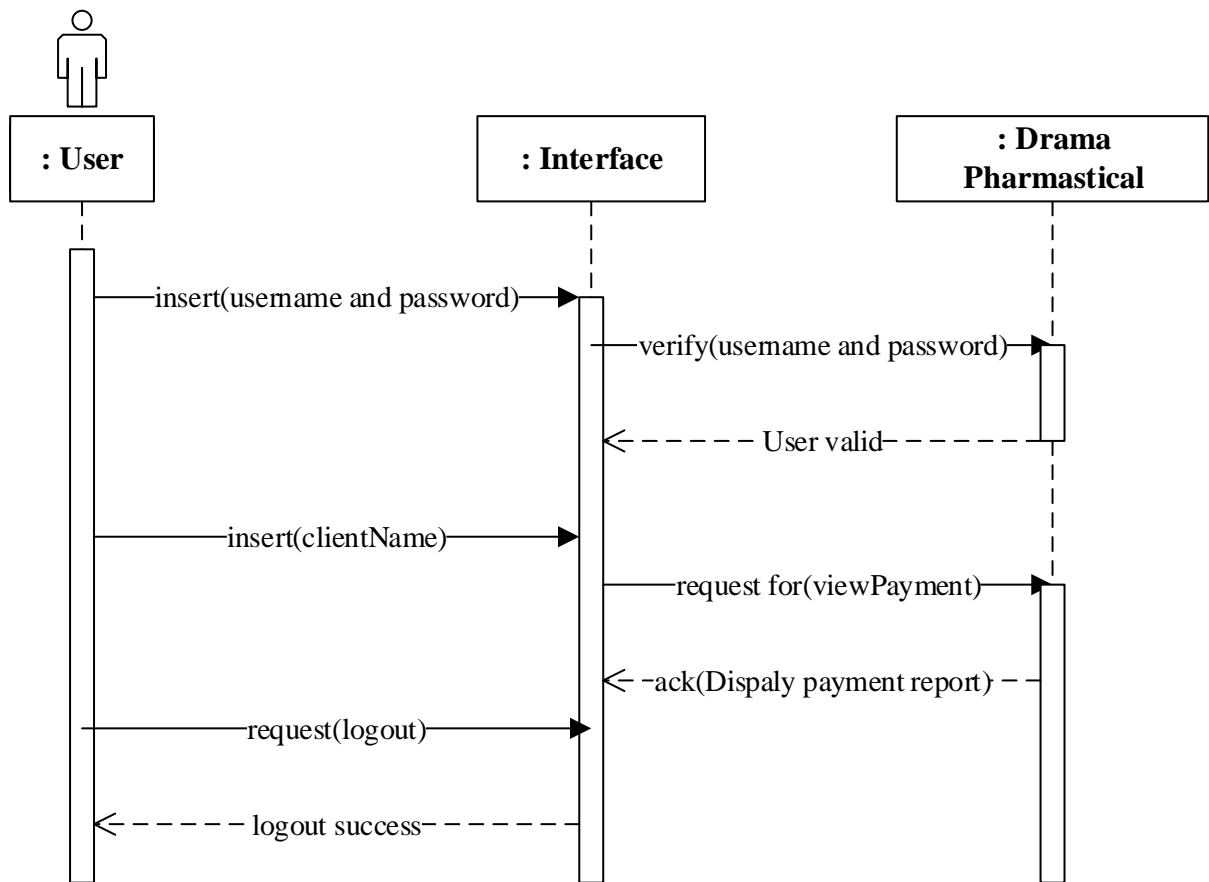
● (end)

Phase

Fig5:Activity Diagram for provide order

10

Sequence Diagram:

Fig6:Sequence diagram for ViewPayment