To Understand Sequence Diagram

Blood bank management System

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Course : SEPM

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AIM: To prepare sequence diagram.

THEORY:
Sequence diagrams model the flow of logic within the system.
Sequence diagrams are the most popular UML artifact for dynamic modeling, which focuses on
identifying the behavior within your system.

Sequence diagrams are typically used to model:

1. Usage scenarios. A usage scenario is a description of a potential way the system is used.
The logic of a usage scenario may be part of a use case, perhaps an alternate course.

2. The logic of methods.
Sequence diagrams can be used to explore the logic of a complex operation, function, or procedure.

One should often develop a system-level sequence diagram to help both visualize and validate the logic of a usage scenario.

Sequence Diagram Notations

Class Roles or Participants
Class roles describe the way an object will behave in context. Use the UML object symbol to illustrate class roles, but don't list object attributes.

**Activation or Execution Occurrence**
Activation boxes represent the time an object needs to complete a task. When an object is busy executing a process or waiting for a reply message, use a thin gray rectangle placed vertically on its lifeline.


Messages
Messages are arrows that represent communication between objects. Use half-arrowed lines to represent asynchronous messages. Asynchronous messages are sent from an object that

will not wait for a response from the receiver before continuing its tasks. For message types, see below.
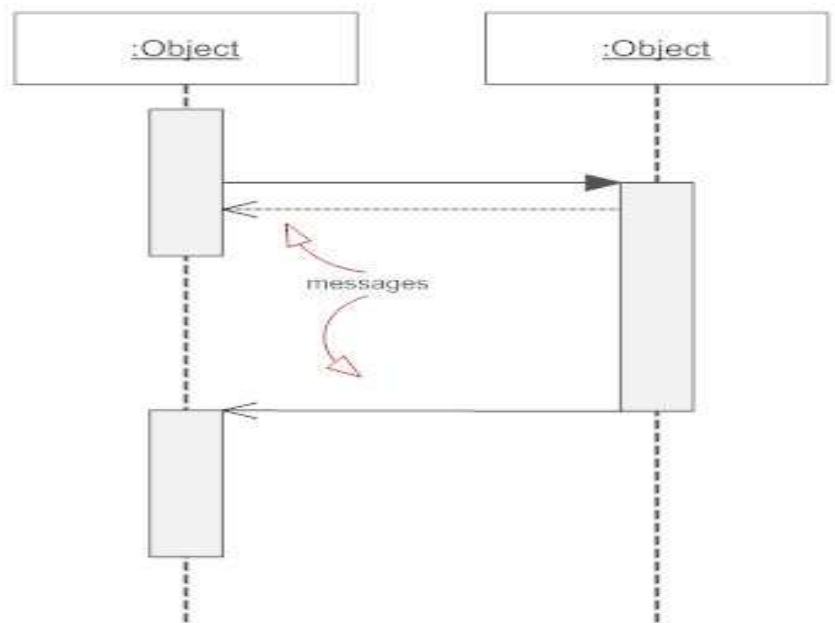
Lifelines
Lifelines are vertical dashed lines that indicate the object's presence over time.
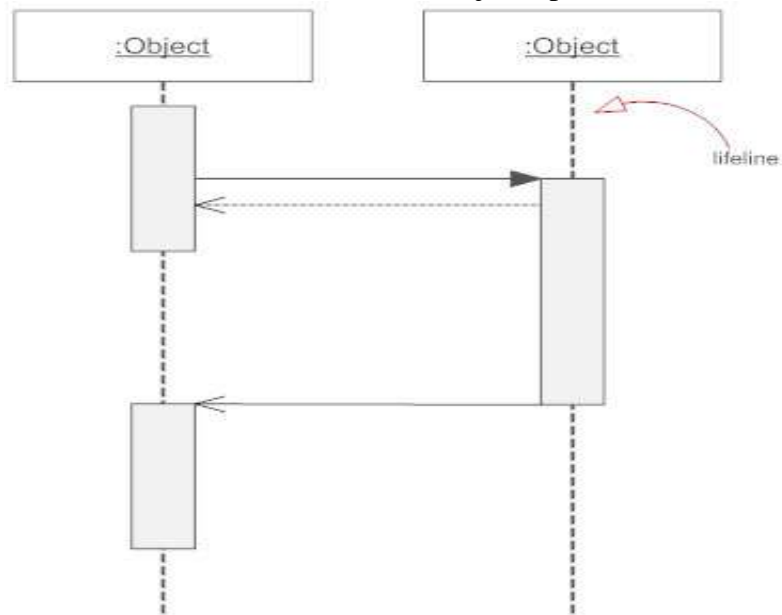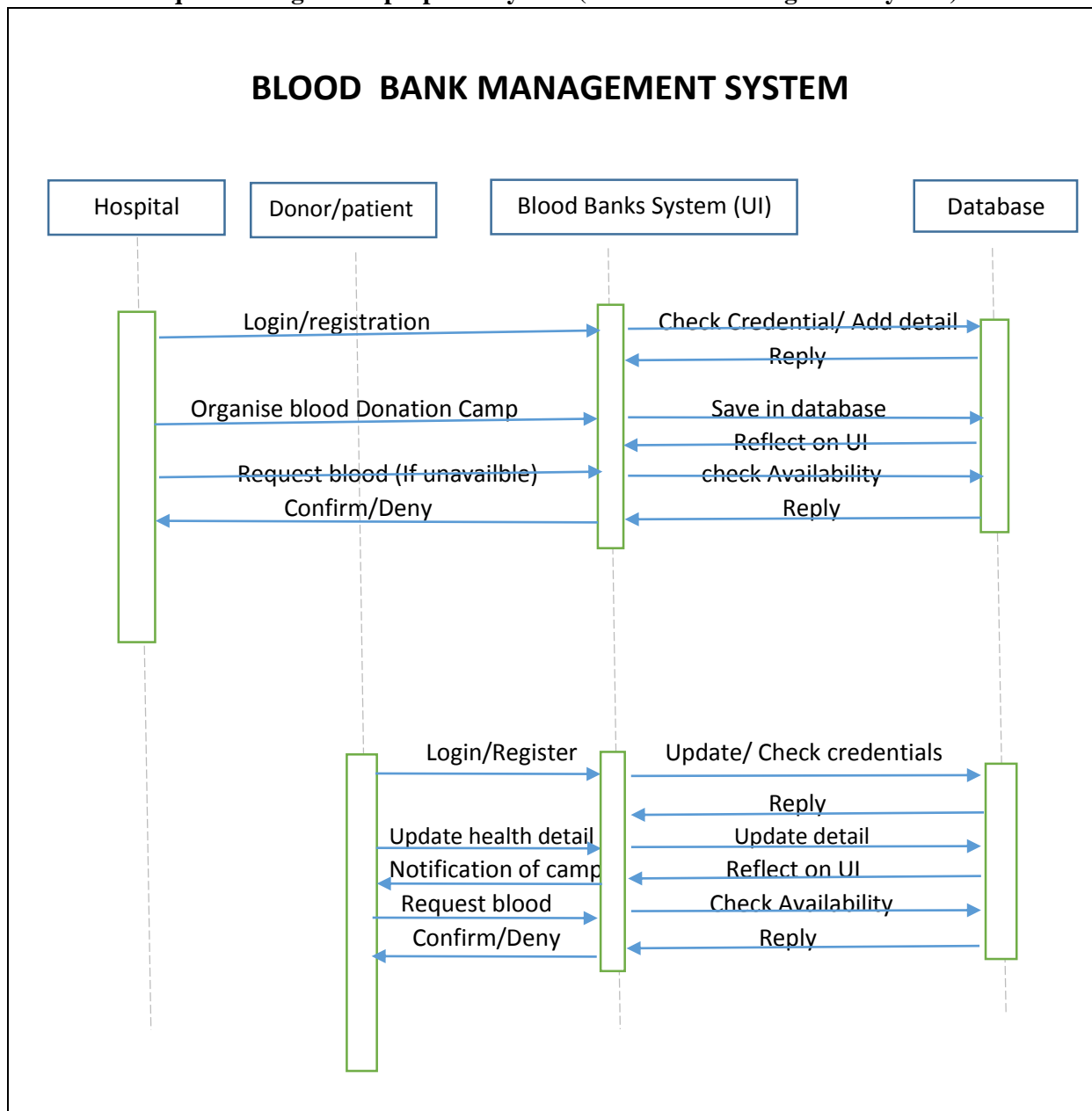

Destroying Objects
Objects can be terminated early using an arrow labeled "<< destroy >>" that points to an X. This object is removed from memory. When that object's lifeline ends, you can place an X at the end of its lifeline to denote a destruction occurrence.

Loops
A repetition or loop within a sequence diagram is depicted as a rectangle. Place the condition for exiting the loop at the bottom left corner in square brackets [ ]

Sequence Diagram of proposed System (Blood Bank management System)

BLOOD BANK MANAGEMENT SYSTEM

Hospital	Donor/patient	Blood Banks System (UI)	Database

Login/registration

Check Credential/ Add detail

Reply

Organise blood Donation Camp

Save in database

Reflect on UI

Request blood (If unavailble)

check Availability

Confirm/Deny

Reply

Login/Register

Update/ Check credentials

Reply

Update health detail

Update detail

Notification of camp

Reflect on UI

Request blood

Check Availability

Confirm/Deny

Reply

Conclusion: Hence we designed Sequence diagram successfully.