Experiment no- 06

Name: Suraj P. Patil

Roll No: 3034

URN: 20131086

Class: TY(A)

Batch: T-2

Title:

Draw a collaboration diagram.

A collaboration diagram in UML (Unified Modeling Language) is a type of diagram that shows the interactions and relationships among objects or actors within a system. It is also known as a communication diagram
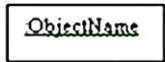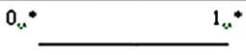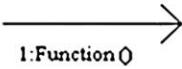
In a collaboration diagram, the focus is on the messages exchanged between objects or actors rather than the order of events or sequence. It is useful for understanding the flow of messages between objects or actors in a system and for identifying potential issues with the system's design

The diagram consists of a set of objects or actors represented as rectangles or stick figures, respectively, and the messages exchanged between them represented as arrows. The messages can include requests, responses, and other types of communication.

Collaboration diagrams also include labels to indicate the type of message being sent, as well as any constraints or conditions that must be met for the message to be sent. Additionally, they can include lifelines, which represent the duration of an object or actor's participation in the interaction
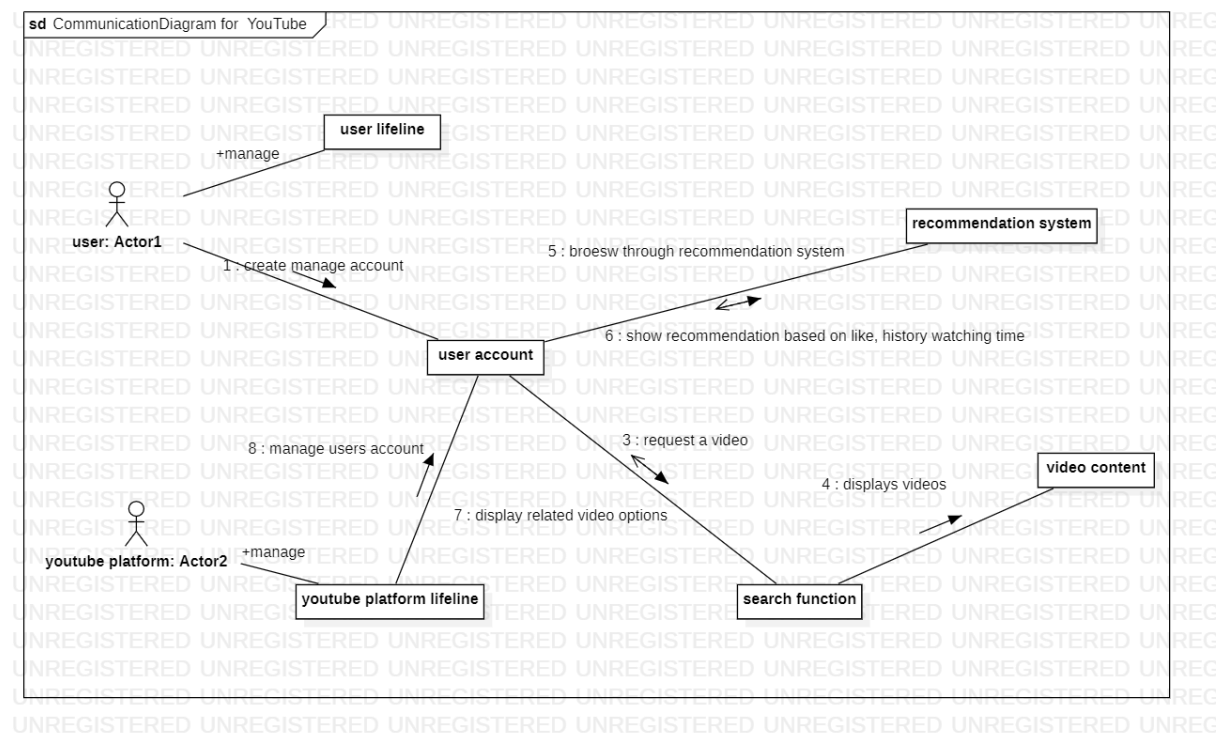
Collaboration Diagram

• Collaboration Diagram shows the object organization, It is also known as COMMUNICATION Diagram.

• In this diagram the method call sequence is indicated by some numbering technique

• The numbers indicate how the methods are called one after another

• The method calls are similar to that of a sequence diagram.

• But the difference is that the sequence diagram does not describe the object organization where as the collaboration diagram shows the object organization.

Element and its description	Symbol
Object: The objects interacting with each other in the system. Depicted by a rectangle with the name of the object in it, preceded by a colon and underlined.	ObjectName
Relation/Association: A link connecting the associated objects. Qualifiers can be placed on either end of the association to depict cardinality.	0.* 1.*
Messages: An arrow pointing from the commencing object to the destination object shows the interaction between the objects. The number represents the order/sequence of this interaction.	1:Function ()

Messages (or Method calls):

• Messages are shown as labeled arrows attached to links.

• Messages are numbered as per their Sequence.

• Each message has a sequence number, an optional list of predecessor messages, an optional guard condition, a name and argument list, and an optional return value name.

• The sequence number includes the (optional) name of a thread.

Here is the communication/ collaboration diagram for YouTube.

Overall, collaboration diagrams are useful tools for visualizing the interactions within a system and can be used to identify potential issues with the system's design or to communicate ideas to stakeholders.