

Name/ Registration no:	<u>Abdullah</u>
	<u>81962</u>
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Section:	<u>B</u>

Class Activity 2

1. What is a UML Sequence Diagram?
2. Why do we use Sequence Diagram?
3. Take a real-life suitable example and create a sequence diagram for it.

UML Sequence Diagram:

A UML sequence diagram is a visual representation of the interactions between objects or components in a software system. It shows the sequence of messages exchanged between the objects, the order in which the messages are sent, and the lifelines representing the objects involved.

Why do we use Sequence Diagram?

Sequence diagrams are used in software engineering to visualize the interactions between objects or components in a system. They help identify errors or inefficiencies in the design before implementation, reducing development time and costs. Additionally, sequence diagrams aid communication by providing stakeholders with a clear understanding of the system's behavior. Ultimately, they are an essential tool for software developers and architects, improving design and resulting in more efficient and effective software development.

Example:

Let's consider a real-life example of a customer making a purchase online. The sequence diagram below shows the interactions between the customer, the online store, and the payment gateway. This sequence diagram helps to illustrate the interactions between the objects involved in the purchase process, making it easier to understand the flow of events in the system.

Diagram:

