

Short note on Interactions and Interaction diagrams and draw an interaction diagram considering a real time problem.

## **Interactions**

- An interaction is a behavior that comprises a set of messages exchanged among a set of objects within a context to accomplish a purpose.
- A message is a specification of a communication between objects that conveys information with the expectation that activity will ensue.
- You may find an interaction wherever objects are linked to one another.
- You'll find interactions in the collaboration of objects that exist in the context of your system or subsystem.
- You will also find interactions in the context of an operation.
- Finally, you'll find interactions in the context of a class.
- Most often, you'll find interactions in the collaboration of objects that exist in the context of your system or subsystem as a whole.

## **Interaction diagram**

- As its name might suggest, an interaction diagram is a type of UML diagram that's used to capture the interactive behaviour of a system.
- Interaction diagrams focus on describing the flow of messages within a system, providing context for one or more lifelines within a system.
- In addition, interaction diagrams can be used to represent the ordered sequences within a system and act as a means of visualizing real-time data via UML.
- An interaction diagram shows an interaction, consisting of a set of objects and their relationships, including the messages that may be dispatched among them.
- A sequence diagram is an interaction diagram that emphasizes the time ordering of messages.
- Graphically, a sequence diagram is a table that shows objects arranged along the X axis and messages, ordered in increasing time, along the Y axis.

- A collaboration diagram is an interaction diagram that emphasizes the structural organization of the objects that send and receive messages. Graphically, a collaboration diagram is a collection of vertices and arcs.

## Example of an Interaction diagram - Online Food delivery system

