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**Explain the 3-tier software architecture and use a restaurant and an online eCommerce website to further illustrate your explanation.**

1. View Layer
   1. Responsible for interacting with the users (eg. Presenting data and collecting inputs)
   2. Restaurant: Waitstaff that takes your orders
   3. Ecommerce Website: The website itself where users can browse products and add to cart
2. Business Logic Layer
   1. Handles data and ensures that correct data is being passed onto the database layer
   2. Restaurant: the chef who cooks the meals based on the orders
   3. Ecommerce Website: The backend that handles authentication and processes payment
3. Data Layer
   1. For storing, retrieving and managing data
   2. Restaurant: Inventory system to track supplies
   3. Ecommerce Website: Database that stores user information and the order history

**In the context of the 3-tier software architecture, does it mean more tiers for more ﬂexibility and beneﬁts?**

No. More tiers can introduce more complicated infrastructure leading to complicated plans and higher development cost.

**Describe the various elements that are in a sequence diagram.**

1. Actors: Roles that interact with the system
2. Input message
3. Output message
4. An object representing the automated system
5. Object lifeline which shows the sequence of message from top to bottom
6. Optional note to explain something in the diagram