# The major components of Unified Modelling Language

## UML includes the following 5 diagrams:

1. **Class diagram:** These diagrams depict the behavioral pattern of the system, i.e., how each and every class is inter-related to the other one, which relationship exists among each of the classes, etc. There would be only one class diagram possible for a single system. Class diagrams of one system can be linked to the class diagrams of another system, provided, there is multi-system requirement.
2. **Use case diagram:** Use case diagram comprises of use cases and actors such that there would be various kinds of relationships among the use cases and the actors. A use case diagram shows all the actions that particular actor needs to perform throughout the system at every and any point of time. There would be only one-use case diagram per system.
3. **Sequence diagram:** This diagram, as the name suggests, contains the sequence of flow of actions that are processed through a system and the lifelines of the entities, when and how are they accessed. It also contains the security like which entity can process which entity and which one is visible, etc. There can be many numbers of sequence diagrams for each activity being done.
4. **Activity diagram:** This diagram denotes the structural flow of the activities in the form of flow chart with decision boxes enhanced and hence is also used for troubleshooting like raising exceptions when a particular action is done and the alternative to be done when something abnormal is done. There can be only one activity diagram for the entire system including all the activities that a system can perform.
5. **Statechart diagram:** This diagram is a polymorphic form of the activity diagram in which the representation is different, but application is the same. It looks like a finite state machine state transition diagram.

## Case Study

## Pharmacy Management System

### Problem Statement:

Problem Statement: The case study titled Pharmacy Management System is pharmacy management software for the purpose of monitoring and controlling the transactions in a pharmacy. This case study on the pharmacy management system gives us the complete information about the pharmacy and the daily transactions done in a Pharmacy. We need to maintain the record of news and retrieve the details of Medicine available in the pharmacy which mainly focuses on basic operations in a pharmacy like adding new pharmacist, new medicine, and up new information, searching medicine and pharmacist and facility to borrow and return feedback. It features a familiar and well thought-out, attractive user interface, good ideas of which are borrowed by the members, makes users possible to generate hard medicine. Online pharmacy systems have Admin, pharmacists, customers. There are access specific fields such as admin contact with vendor, add pharmacists, stock details. On the other hand, pharmacists access stock and medicines. Customers can buy medicines and other information.