# Book – Applyig UML and Patterns by Craig Larman

UML has become the universally-accepted language for software design blueprints.

Don’t model alone, model in pairs (or triads) at the whiteboard, in the awareness that the purpose of modeling is to discover, understand, and share that understanding. Rotate the pen sketching across the members so that all participate.

System sequence diagrams are very useful when we want to understand the interface and collaborations of existing systems, or to document the architecture.

The UML includes class diagrams to illustrate classes, interfaces, and their associations. They are used for static object modeling.

The terms interaction diagram is a generalization of two more specialized UML diagram types – sequence diagrams, communication diagrams. Sequence diagrams are excellent for documentation or to easily read a reverse-engineered call-flow sequence, generated from source code with a UML tool.

Communication diagrams have the advantage over sequence diagrams of allowing vertical expansion for new objects – much more can be packed into a small visual space.

The static-view class diagrams are indeed useful, the dynamic-view interaction diagrams-or more precisely, acts of dynamic interaction modeling are incredibly valuable.

A UML activity diagram shows sequential and parallel activities in a process, they are useful for modeling business processes, workflows, data flows, and complex algorithms.

A UML activity diagram offers rich notation to show a sequence of activities, including parallel activities. It may be applied to any perspective or purpose, but is popular for visualizing business workflows and processes, and use cases.

A UML state machine diagram, illustrates the interesting events and states of an object, and the behavior of an object in reaction to an event.