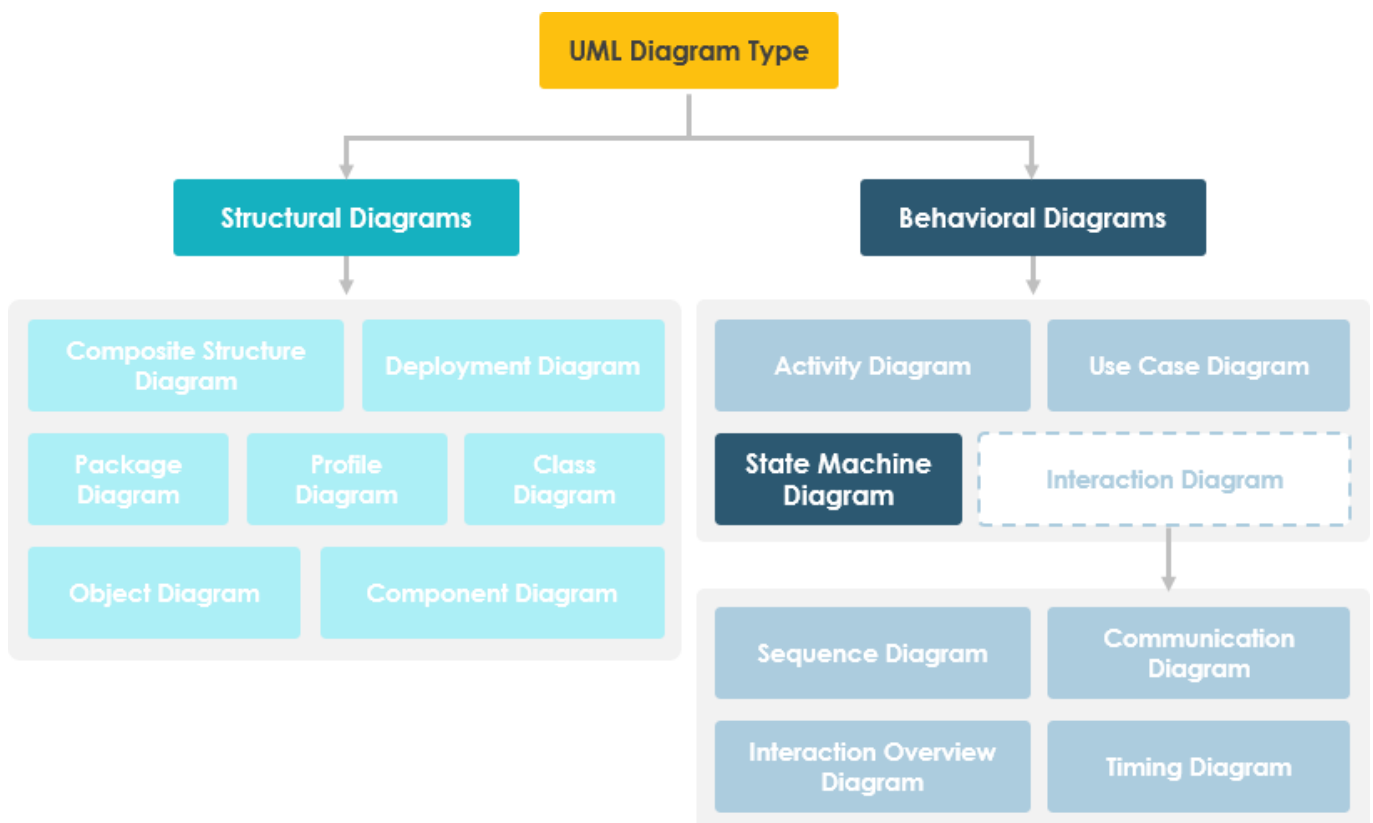# 5. State Machine Diagram

[UML State Machine Diagrams](#) (or sometimes referred to as state diagram, state machine or state chart) show the different states of an entity. State diagrams are used to give an abstract description of the behavior of a entity or even entire system. This behavior is analyzed and represented as a series of events that can occur in one or more possible states.

State machine diagram typically are used to describe state-dependent behavior for an entity or object. **An object responds differently to the same event depending on what state it is in**. State machine diagrams are usually applied to objects but can be applied to any element that has behavior to other entities such as: actors, use cases, methods, subsystems systems and etc. and they are typically used in conjunction with interaction diagrams (usually sequence diagrams).

Other Related State Diagram Articles

- [What is State Machine Diagram?](#)
- [What is UML?](#)
- [Why UML Modeling?](#)
- [Overview of the 14 UML Diagram Types](#)