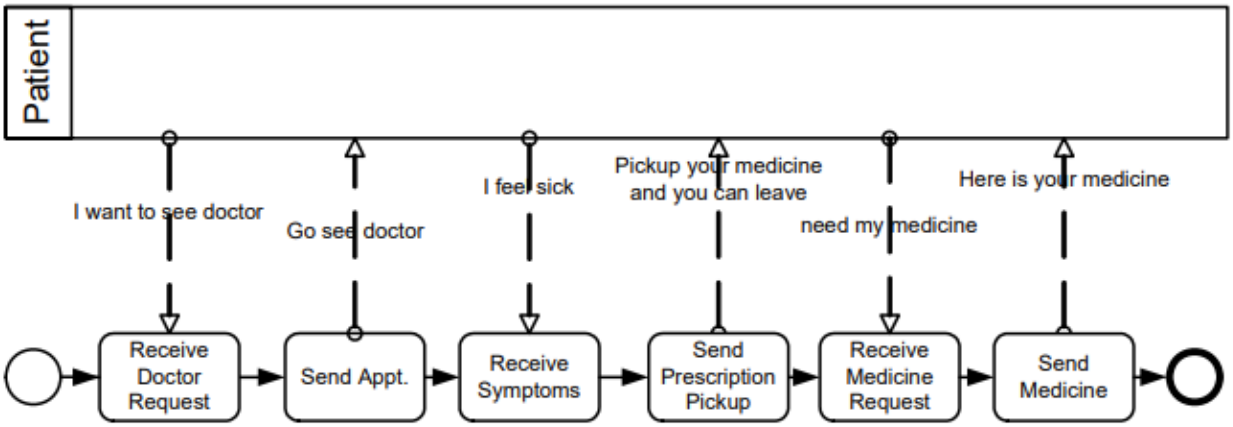
Business Process modeling is used to communicate a wide variety of information to a wide variety of audiences. BPMN is designed to cover many types of modeling and allows the creation of end-to-end Business Processes.

Types:

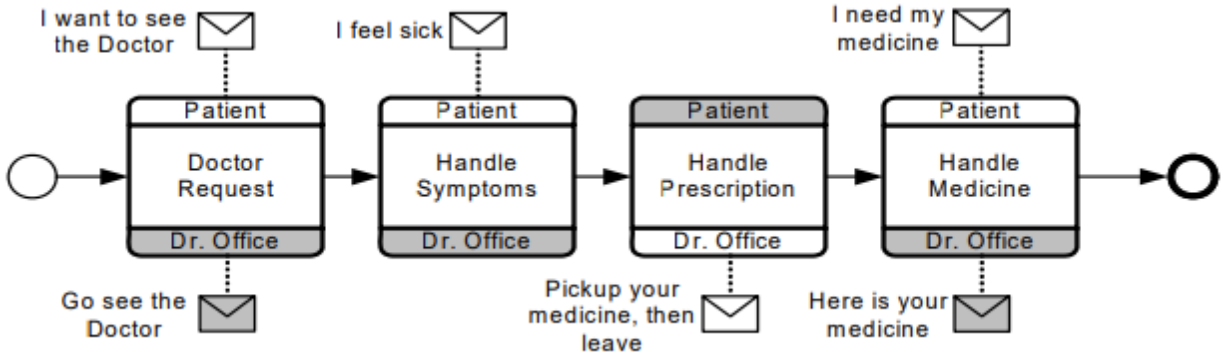
1. Processes (Orchestration), including:
    a. Private (internal) Business Processes
    Private Business Processes are those internal to a specific organization. These processes have been generally called workflow or BPM Processes.
        i. non-executable - a non-executable Process is a private Process that has been modeled for the purpose of documenting Process behavior at a modeler defined level of detail.
        ii. executable - an executable process is a process that has been modeled for the purpose of being executed.

    b. Public Processes
    A public Process represents the interactions between a private business process and another process or participant. Only those activities that are used to communicate to the other participant(s) are included in the public process. All other "internal" activities of the private business process are not shown in the public process. Thus, the public process shows to the outside world the message flows and the order of those message flows that are needed to interact with that process.



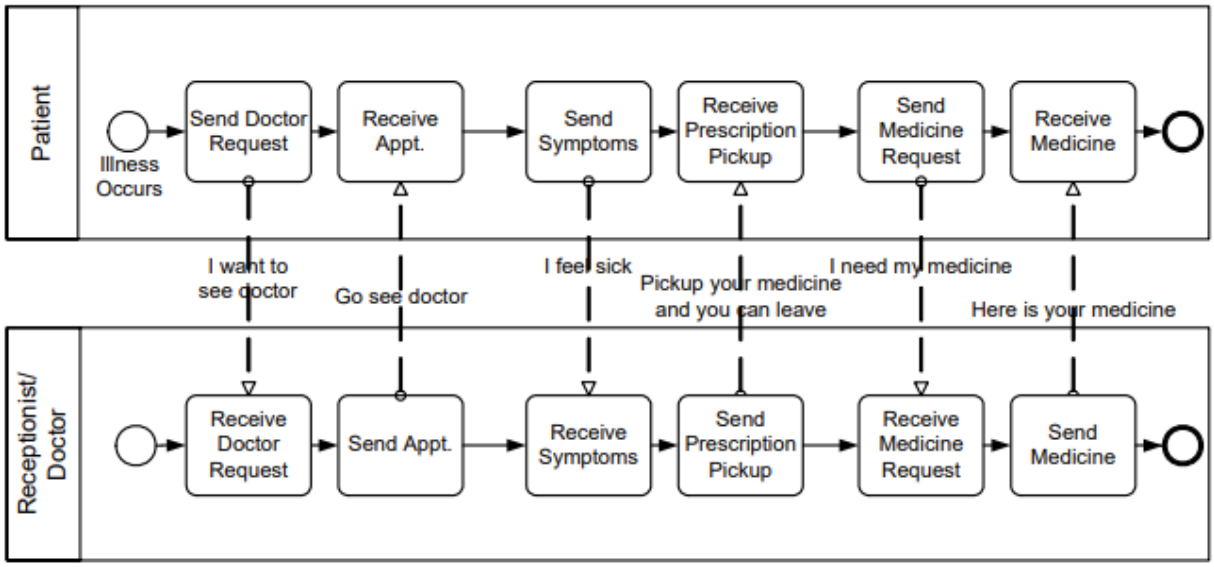
2. Choreographies
    The Choreography looks similar to a private business process since it consists of a network of Activities, Events, and Gateways. However, a Choreography is different in that the Activities are interactions that represent a set of Message exchanges (communication), which involves two or

more participants. In addition, unlike a normal process, there is no central controller, responsible entity or observer of the Process.

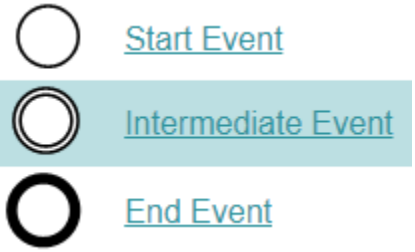
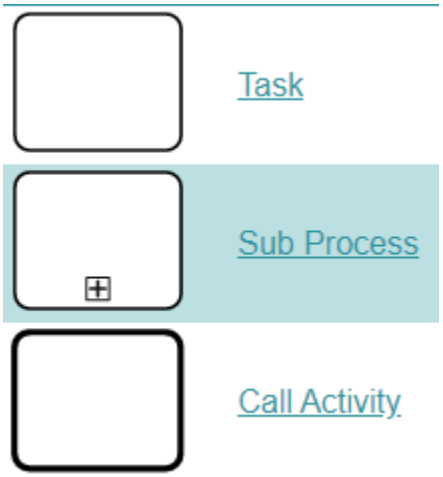


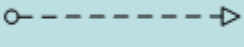
3. Collaborations, which can include Processes and/or Choreographies

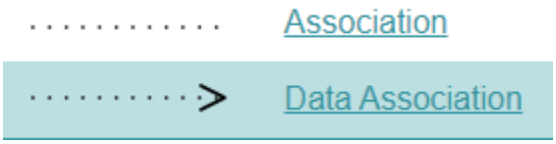
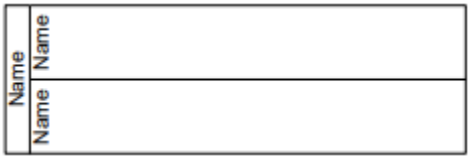
A Collaboration depicts the interactions between two or more business entities. A Collaboration usually contains two or more pools, representing the participants in the Collaboration. The message exchange between the participants is shown by a message flow that connects two pools (or the objects within the pools). The messages associated with the message flows can also be shown. The Collaboration can be shown as two or more public processes communicating with each other. All combinations of Pools, Processes, and a Choreography are allowed in a Collaboration.

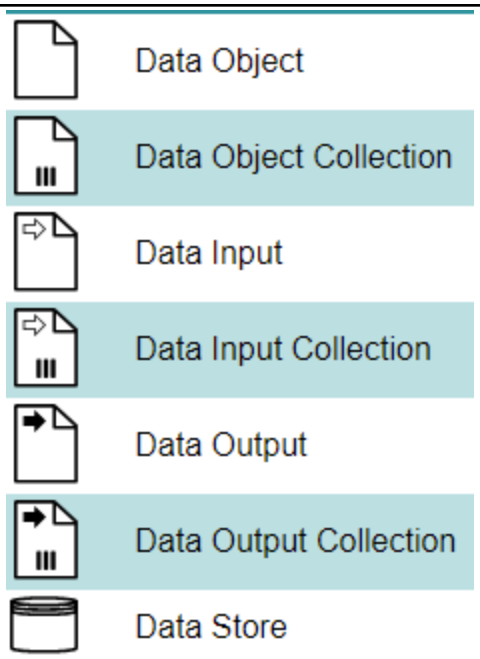


Basic Modeling Elements:

Element	Description	Notation
Event	An Event is something that “happens” during the course of a Process or a Choreography. These Events affect the flow of the model and usually have a cause (trigger) or an impact (result). Events are circles with open centers to allow internal markers to differentiate different triggers or results. There are three types of Events, based on when they affect the flow: Start, Intermediate, and End.	
Activity	An Activity is a generic term for work that company performs in a Process. An Activity can be atomic or non-atomic. The types of Activities that are a part of a Process Model are: Sub-Process, Task & Call, which are rounded rectangles. Activities are used in both standard Processes and in Choreographies.	

Gateway	A Gateway is used to control the divergence and convergence of Sequence Flows in a Process and in a Choreograph. Thus, it will determine branching, forking, merging, and joining of paths. Internal markers will indicate the type of behavior control.	 Exclusive Gateway - without Marker  Exclusive Gateway - with Marker  Inclusive Gateway  Parallel Gateway  Complex Gateway  Event-Based Gateway  Event-Based Gateway to Start a Process  Parallel Event-Based Gateway to Start a Process
Sequence Flow	A Sequence Flow is used to show the order that Activities will be performed in a Process and in a Choreography.	Sequence Flow
Message Flow	A Message Flow is used to show the flow of Messages between two Participants that are prepared to send and receive them. In BPMN, two separate Pools in a Collaboration Diagram will represent the two	 Message Flow

	Participants (e.g., PartnerEntities and/or PartnerRoles)	
Association	An Association is used to link information and Artifacts with BPMN graphical elements. Text Annotations and other Artifacts can be Associated with the graphical elements. An arrowhead on the Association indicates a direction of flow (e.g., data), when appropriate.	
Pool	A Pool is the graphical representation of a Participant in a Collaboration It also acts as a “swimlane” and a graphical container for partitioning a set of Activities from other Pools. A Pool MAY have internal details, in the form of the Process that will be executed. Or a Pool MAY have no internal details, i.e., it can be a "black box."	
Lane	A Lane is a sub-partition within a Process, sometimes within a Pool, and will extend the entire length of the Process, either vertically or horizontally. Lanes are used to organize and categorize Activities.	

Data Object	Data Objects provide information about what Activities require to be performed and/or what they produce, Data Objects can represent a singular object or a collection of objects. Data Input and Data Output provide the same information for Processes.	
Message	A Message is used to depict the contents of a communication between two Participants.	
Group (a box around a group of objects within the same category)	Group is a grouping of graphical elements that are within the same Category. This type of grouping does not affect the Sequence Flows within the Group. The Category name appears on the diagram as the group label. Categories can be used for documentation or analysis purposes. Groups are one way in which Categories of objects can be visually displayed on the diagram.	

Text Annotation (attached with an Association)	Text Annotations are a mechanism for a modeler to provide additional text information for the reader of a BPMN Diagram.	

References:

https://www.bpmnquickguide.com/view-bpmn-quick-guide/

https://www.omg.org/spec/BPMN/2.0