An Introduction to BPMN 2.0

A guide to the core elements within the business process modelling notation

1. Anatomy of a Process Model
2. Three Levels of BPMN
3. Core Concepts

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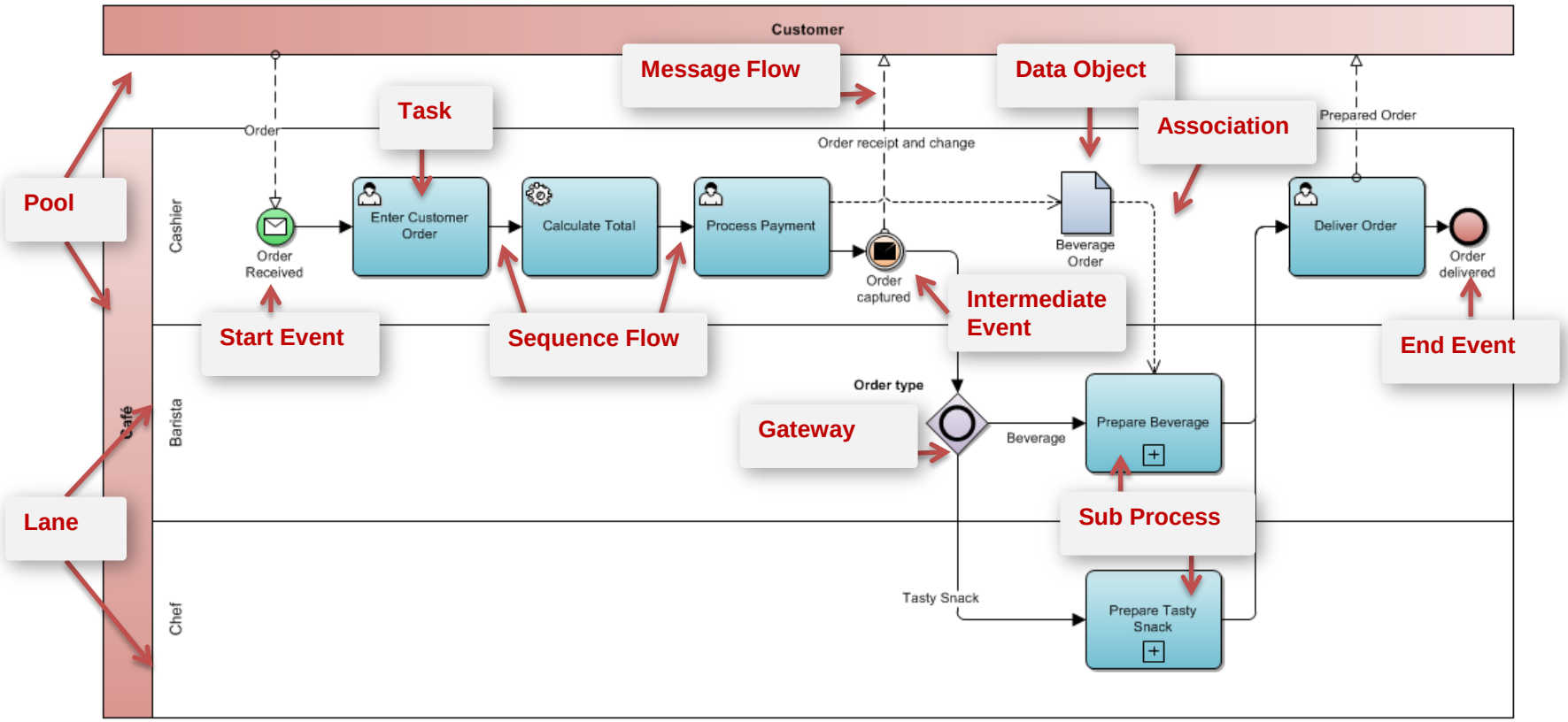
The Anatomy of a Process Model

Core BPMN Elements



Three Levels of BPMN

The BPMN specification defines three levels of BPMN..

Descriptive Process Models

Suitable for high level modelling – should be comfortable for analysts that have used flowcharts.

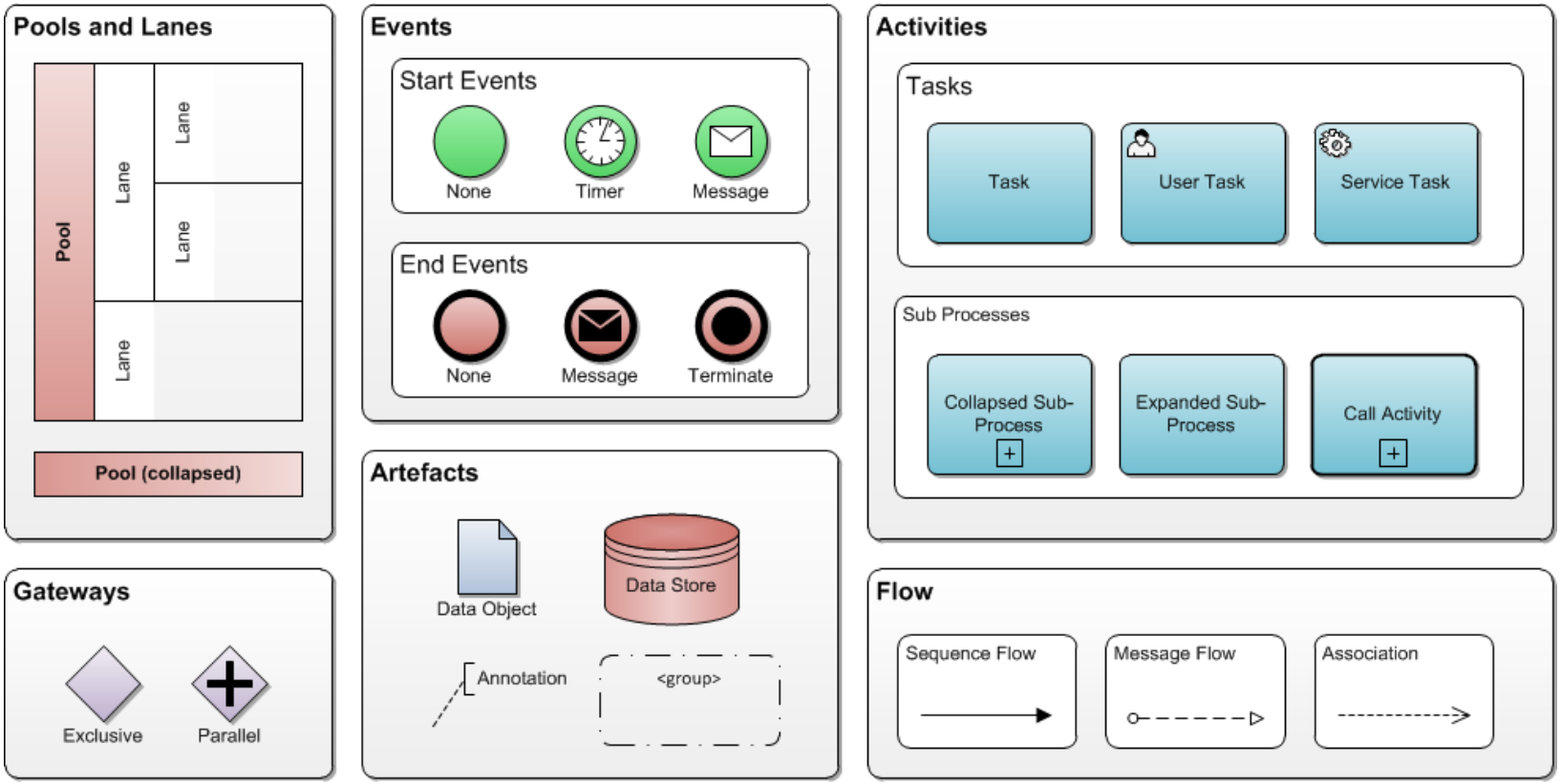
Analytic Process Models

Contains the concepts most commonly used and covered in BPMN training

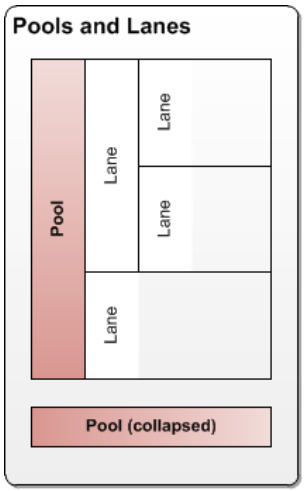
Common Executable Process Models

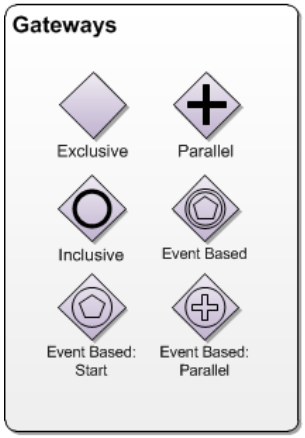
Focuses on the elements required for executable process models

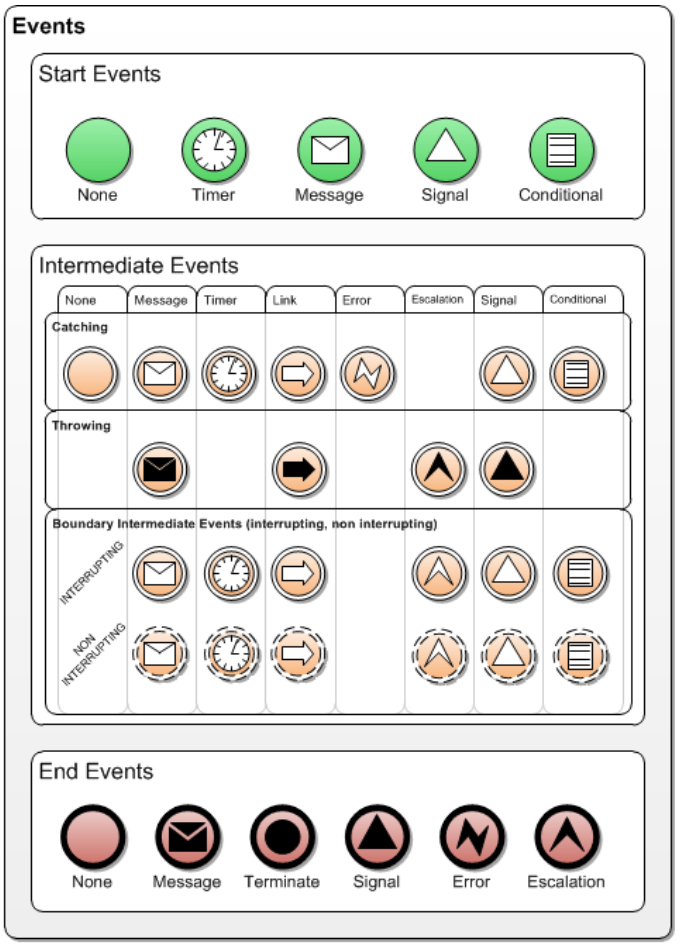
Notation: Descriptive Process Models

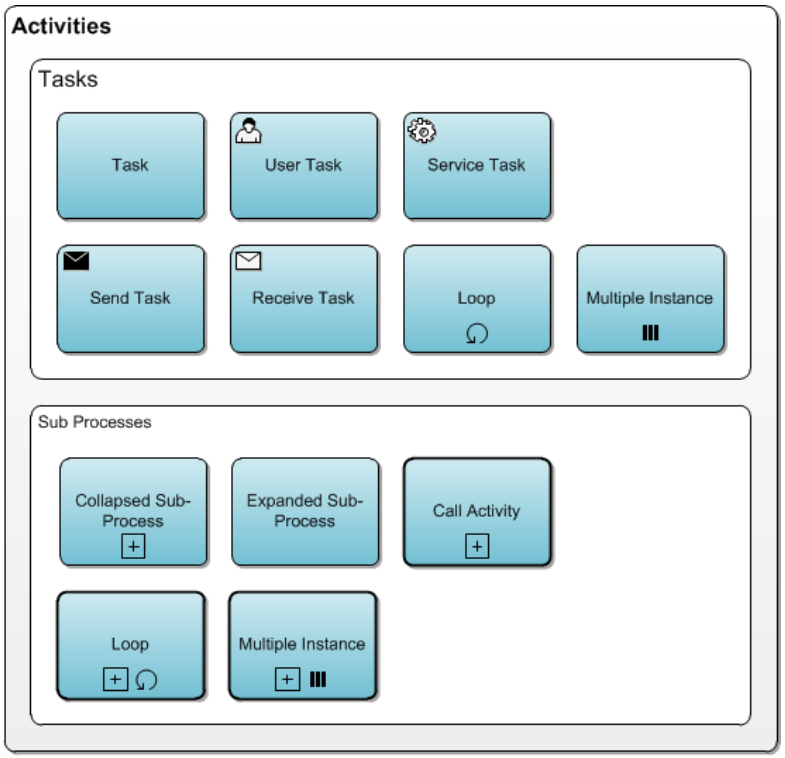


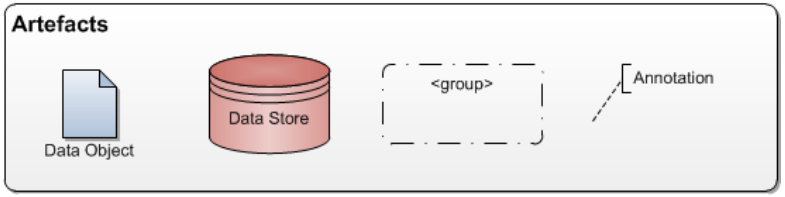
Notation: Analytic Process Models

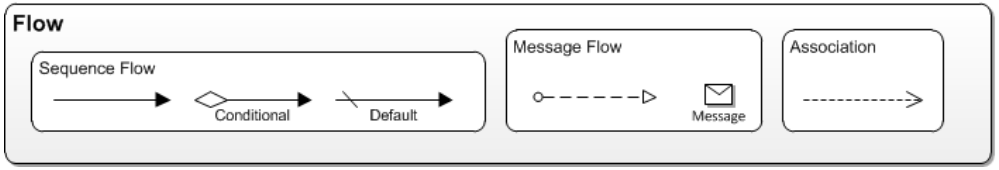








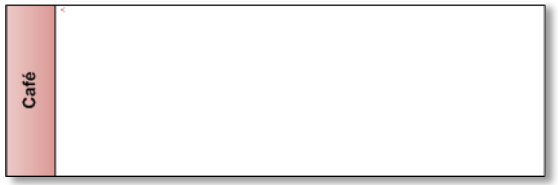




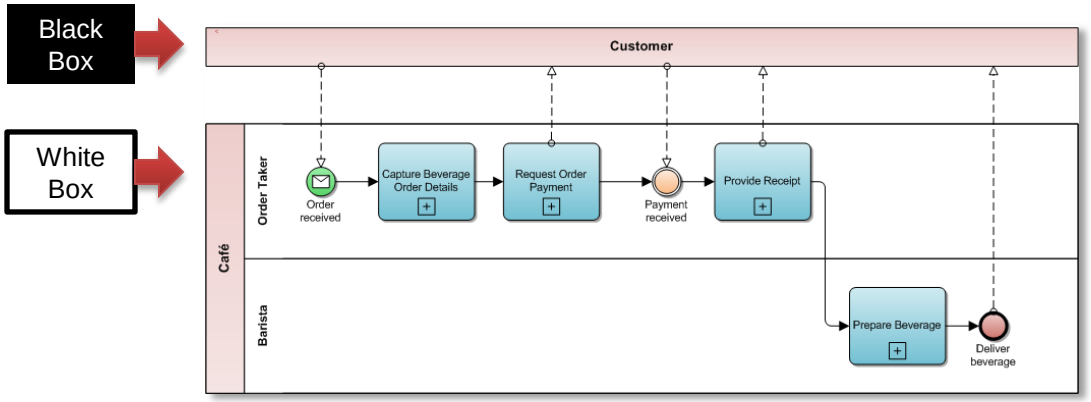
Pools and Lanes

Pools

A pool is used to define either a group of participants such as an area within an organisation or an external entity that collaborates within a process.



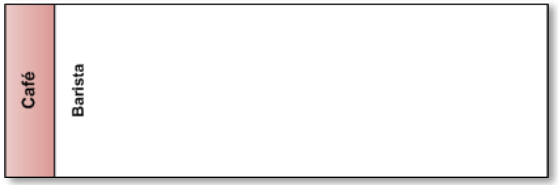
A process model is normally created from the perspective of a single participant – the **white box pool**, and contains the detail of that process. **Black box pools** are considered external to the scope of the process (although not necessarily outside of the organisation), and do not show flow and activities. Black box pools may be collapsed and rotated, but do not have to be.



Lanes

A lane is used to define a specific participant or role within a process.

A lane may be contained within a pool..



..or may itself be broken down into other lanes:

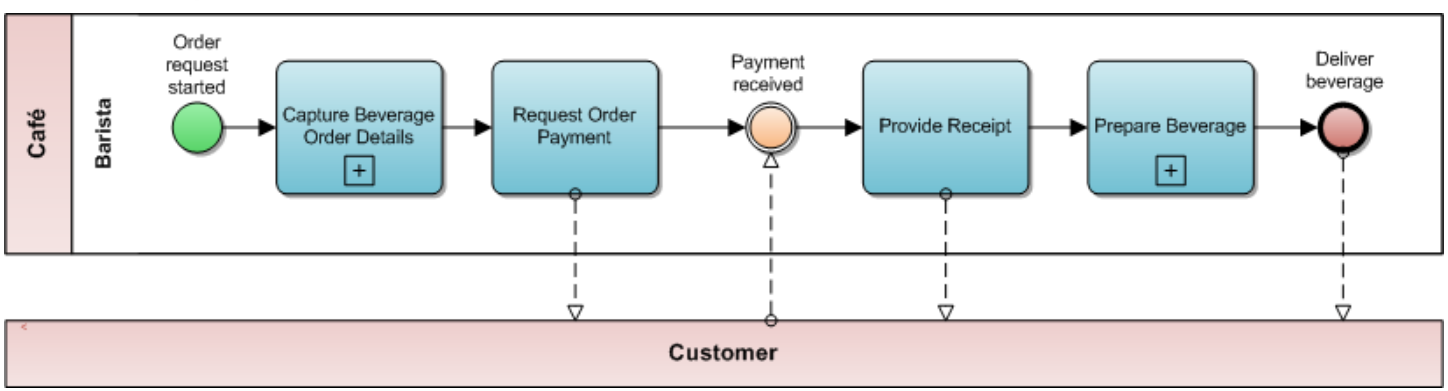
Events

An event is an indicator that something has happened within a process.

Start Event
A process commences because something has happened, such as a message received or a date is reached.

Intermediate Events
Intermediate events happen within the flow of the process (between the start and end events).

End Event
A process finishes when an end is reached. Because a process may have several outcomes, there may be multiple end events.



Activities

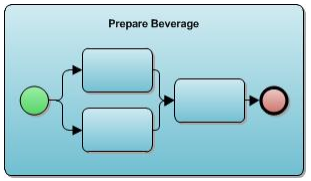
Within the flow of a process, one or more lanes (roles) will perform a number of activities.

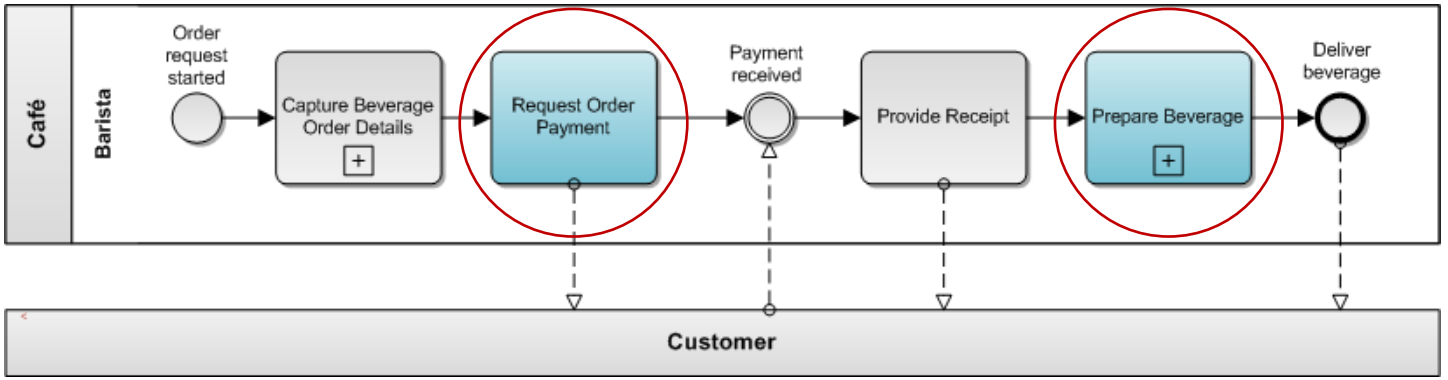
Task
A task is something that a lane (role) does during the process. A task is a granular (atomic) activity that cannot or does not need to be broken down any further.

Sub Process
A sub process summarises a group of activities, and can be expanded out into further detail. Sub processes can be shown as collapsed (with the [+] symbol), or expanded.

Collapsed

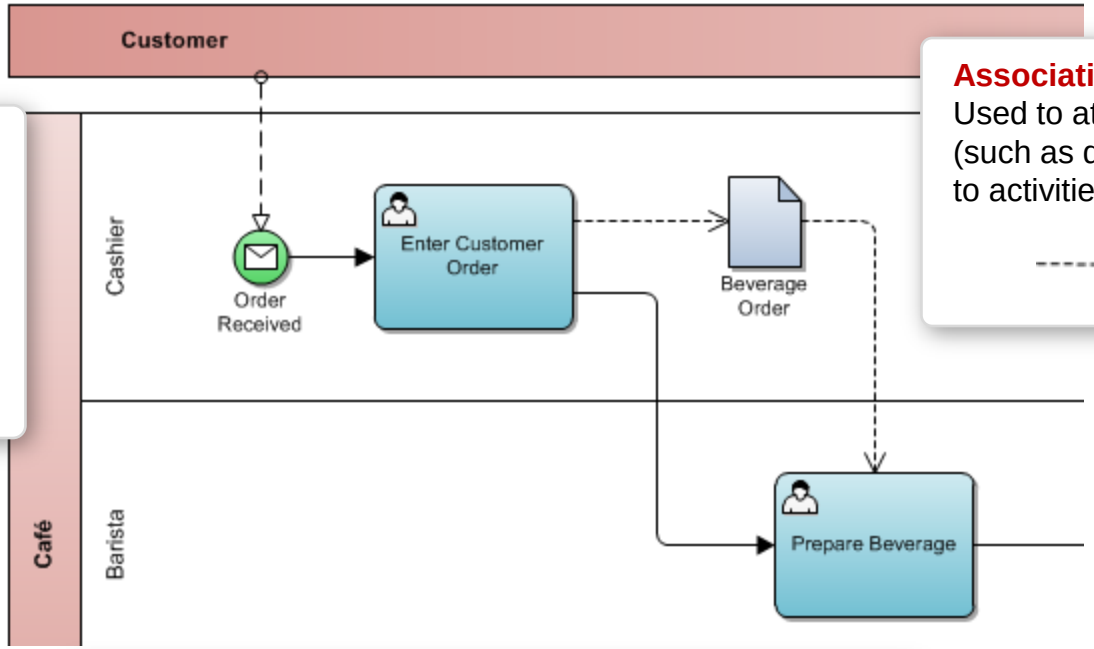
Expanded





Flow

Sequence Flow, Message Flow and Associations



Message Flow
The flow of information as Messages between Participants

Association
Used to attach artefacts (such as data objects) to activities.

Sequence Flow
The sequential flow of the process between events that occur, activities performed by the lanes and decisions that are made (gateways).

Gateways

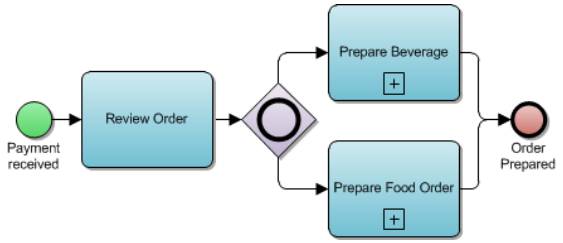
Gateways

Gateways represent decisions within the process, and control the splitting and merging of sequence flow.

The simplest examples are shown:

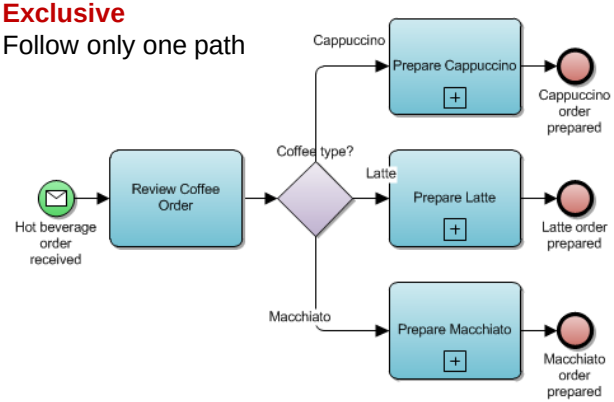
Inclusive

Follow one or more paths



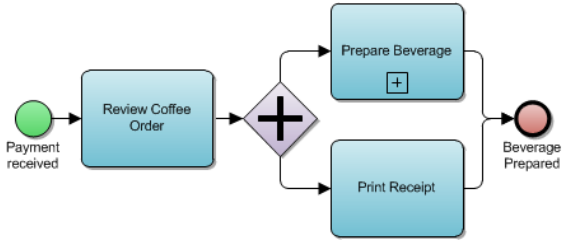
Exclusive

Follow only one path



Parallel

Follow all paths

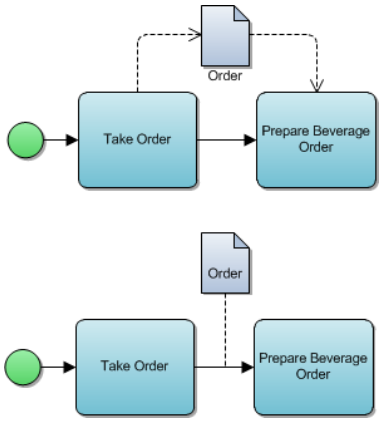


Artefacts

Artefacts allow additional information to be provided on a process model.

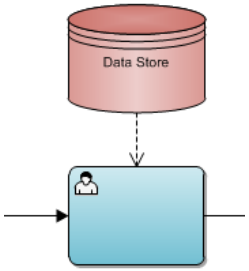
Data Object

Data objects are inputs to and outputs from activities. Data objects could be used to represent documents, data or other objects that are passed between the activities in a process.



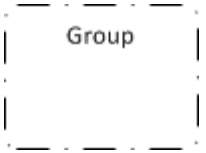
Data Store

A data store is somewhere that the process can read or write data, that persists beyond the scope of the process.



Group

A visual way of informally grouping items on a diagram, for example to highlight an area that requires further analysis.



Annotation

Annotations allow additional information relevant in documenting the process to be shown on the diagram