### Activities (Rounded Rectangles)

- **Task**
  - A task is a simple activity used when the work performed within the process cannot be broken down to a finer level of detail. BPMN defines different task types:
  - User
  - Manual
  - Service
  - Send
  - Receive
  - Script
  - Reference
  - Business Rule

- **Sub-process**
  - Is a composed activity whose internal details are defined as a flow of other activities.

- **Embedded Sub-process**
  - Depends on the parent process. It cannot contain pool or lanes.

- **Reusable Sub-process**
  - Is a process defined as an independent process diagram that does not depend on the parent process.

- **Transactional Sub-process**
  - Its behavior is controlled through a transaction protocol.

- **Ad-Hoc Sub-process**
  - Contains a group of activities whose sequence and number of activities is defined by their performers.

- **Event Sub-process**
  - Is launched by an event

### Gateways (Diamonds)

- **Data-Based Exclusive Gateway**
  - The exclusive decision has two or more outgoing sequence flows, but only one of them can be taken based on data expression conditions. As convergence is used to merge alternative paths.

- **Event-Based Gateway**
  - This gateway represents a point in the process where only one of many paths of the process can be selected based on an event, not on data expression condition. Remaining paths will be disabled.

- **Exclusive Event-Based Gateway**
  - Allows instantiating a process. If ONE of the subsequent events occurs, a new process instance will be created.

- **Parallel Event-Based Gateway**
  - Allows instantiating a process. If ALL of the subsequent events occur, a new process instance will be created.

- **Parallel Gateway**
  - Is used to create parallel flows. As convergence is used to synchronize multiple parallel paths into one. The flow continuous when all the incoming sequence flows have reached the gateway.

- **Inclusive Gateway**
  - Is used when in a point of the flow one or more routes can be activated from many available, and the decision is based on process data. As convergence indicates that the active routes are synchronized into just one.

- **Complex Gateway**
  - Is used to control complex decisions. As convergence, there will be an expression that will determine which of the incoming sequence flow will be required for the process to continue.

### Swinlanes

- **Pool**
  - A pool is a container of a single process. The name of the pool can be considered as the name of the process. There is always at least a pool even if it is not diagrammed.

- **Lane**
  - A lane is a subdivision of a pool and represents a role or an organizational area.

### Artifacts

- **Annotation**
  - Are text boxes used to provide additional information about the process.

- **Group**
  - Group a set of activities for the purpose of documentation or analysis.

- **Data Object**
  - Provides information about how documents, data and other objects are used and updated during the process.

- **Data Store**
  - Provides a mechanism for activities to retrieve or update stored information that will exist beyond the scope of the process.

### Objetos de conexión

- **Sequence flow**
  - Represents the control of the flow and the sequence of the activities, gateways and events

- **Conditional sequence flow**

- **Default sequence flow**

- **Message flow**
  - A Message flow is used to show the flow of messages between two entities or processes.
  - Represents signals or messages, not flow controls
  - Not all message flows are fulfilled for each instance of the process nor is there a specific order for the messages

- **Association**
  - An association is used to associate additional information about the process and compensation tasks.
Events represent something that happens or may happen during the course of a process and that affect its flow. There are three event types:

<table>
<thead>
<tr>
<th>Start events</th>
<th>Intermediate Events</th>
<th>End Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>These events start process flows. Do not have incoming sequence flows.</td>
<td>Intermediate Events indicate that something occurs or may occur somewhere between the start and end. These events can be used within sequence flows or attached to the boundaries of an activity so it is executed once the event is activated.</td>
<td>These events end process flows thus, they do not have outgoing sequence flows.</td>
</tr>
</tbody>
</table>

### Start events
- **None Start Event**
  - Does not specify any particular behavior to start a process.
- **Message Start Event**
  - A process starts when a message is received.
- **Timer Start Event**
  - A process starts at a certain time or on a specified date.
- **Conditional Start Event**
  - A process starts when a business condition becomes true.
- **Signal Start Event**
  - A process starts when a signal coming from another process is captured.
- **Multiple Start Event**
  - Indicates that there are many ways to start the process. Only one of them will be required.

### Intermediate Events
- **None Intermediate Event**
  - Indicates that something occurs or may occur within the process. It can only be used within the sequence flow.
- **Message Intermediate Event**
  - Indicates that a message can be sent or received. It can be used within a sequence flow or attached to the boundaries of an activity to indicate an exception flow.
- **Timer Intermediate Event**
  - Indicates a waiting time within the process. It can be used within a sequence flow or attached to the boundaries of an activity to indicate an exception flow.
- **Escalation Intermediate Event**
  - Indicates that the process must be escalated to a higher level of responsibility. The shape can be used within the sequence flow to throw the event or attached to the boundaries of an activity to catch it.
- **Conditional Intermediate Event**
  - Is used when the flow needs to wait for a business condition to be fulfilled. It can be used within a sequence flow or attached to the boundaries of an activity to indicate an exception flow.
- **Link Intermediate Event**
  - This event allows connecting two sections of the process. It only can be used within the process flow.
- **Error Intermediate Event**
  - Is used to catch and handle errors. It can only be used attached to the boundaries of an activity.
- **Cancel Intermediate Event**
  - Is used within the transactional processes modeling. It can only be used attached to the boundaries of an activity for the activity to be compensated once the event is activated.
- **Compensation Intermediate Event**
  - Allows handling compensations. It can be used within the sequence flow to indicate that a compensation is needed or attached to the boundaries of an activity for the activity to be compensated once the event is activated.
- **Signal Intermediate Event**
  - Is used to send or receive signals. It can be used within a sequence flow or attached to the boundaries of an activity to indicate an exception flow.
- **Multiple Intermediate Event**
  - This event can be activated by many causes. Only one of them is required. It can only be used within the sequence flow.
- **Parallel Multiple Intermediate Event**
  - This event is activated by multiple triggers. It is necessary that all of them to be fulfilled for activating it. It can be used within the sequence flow or attached to the boundaries of an activity.

### End Events
- **None End Event**
  - Indicates that the flow ends and there is no a defined result.
- **Message End Event**
  - Indicates that a message is sent when the flow arrives at the end.
- **Escalation End Event**
  - Indicates that an escalation is necessary when the flow arrives at the end.
- **Conditional End Event**
  - A process starts when a business condition becomes true.
- **Signal End Event**
  - Indicates that a signal is sent when the flow arrives at the end.
- **Compensation End Event**
  - Indicates that the flow has finished and it is necessary a compensation.
- **Cancel End Event**
  - Allows sending a cancel exception when the flow arrives at the end. It is only used in transactional sub processes.
- **Multiple End Event**
  - Indicates that many results can be given when the flow arrives at the end.
- **Terminate End Event**
  - The process and all its activities finish, no matters if there is one or more pending flows.