

Swim Lanes in BPMN

Definition

- Swim lanes are one of the five basic categories of BPMN elements and serve as a container for partitioning a set of activities from other activities.
- BPMN defines two types of swim lanes: pools and lanes.

Pools

- A pool represents a participant in a business collaboration, which can be a specific partner entity like a company or a role such as a buyer, seller, or manufacturer.
- A pool acts as a container for a full business process, and the process must be entirely contained within the pool. The sequence flow cannot cross outside the pool's boundaries.

- Pools have two types of representations:

- **White Box:** Shows the internal details of the pool.

- **Black Box:** Hides any internal processes. Black box representation is useful when the pool does not reference a specific process but an external participant.

- Naming conventions:

- Black box pools are usually named after the process participant they represent.

- White box pools are usually named after the process they contain.

Lanes

- A lane is a sub-partition within a pool and extends the entire length of the pool either horizontally or vertically.
- Lanes are used to organize and categorize activities within a pool.

- In practice, lanes are often used to allocate activities to roles, systems, or organizational departments
- Lanes can also be nested. For example:
 - An outer set of lanes could represent company departments.
 - An inner set of lanes could represent roles within a department.

Comparison Between Pools and Lanes

- While both swim lane elements appear similar, they have different meanings:
 - A pool represents a participant in a business collaboration and may act as a container for a single process.
 - A lane is an activity-classifying mechanism.