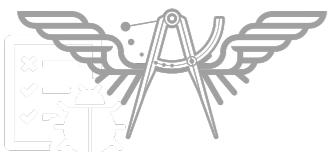


# Design Business Process/Workflow



# Design Business Process/Workflow



# Topics

Understanding business process and workflow

Type of diagrams for workflow

Swimlane, Flowchart

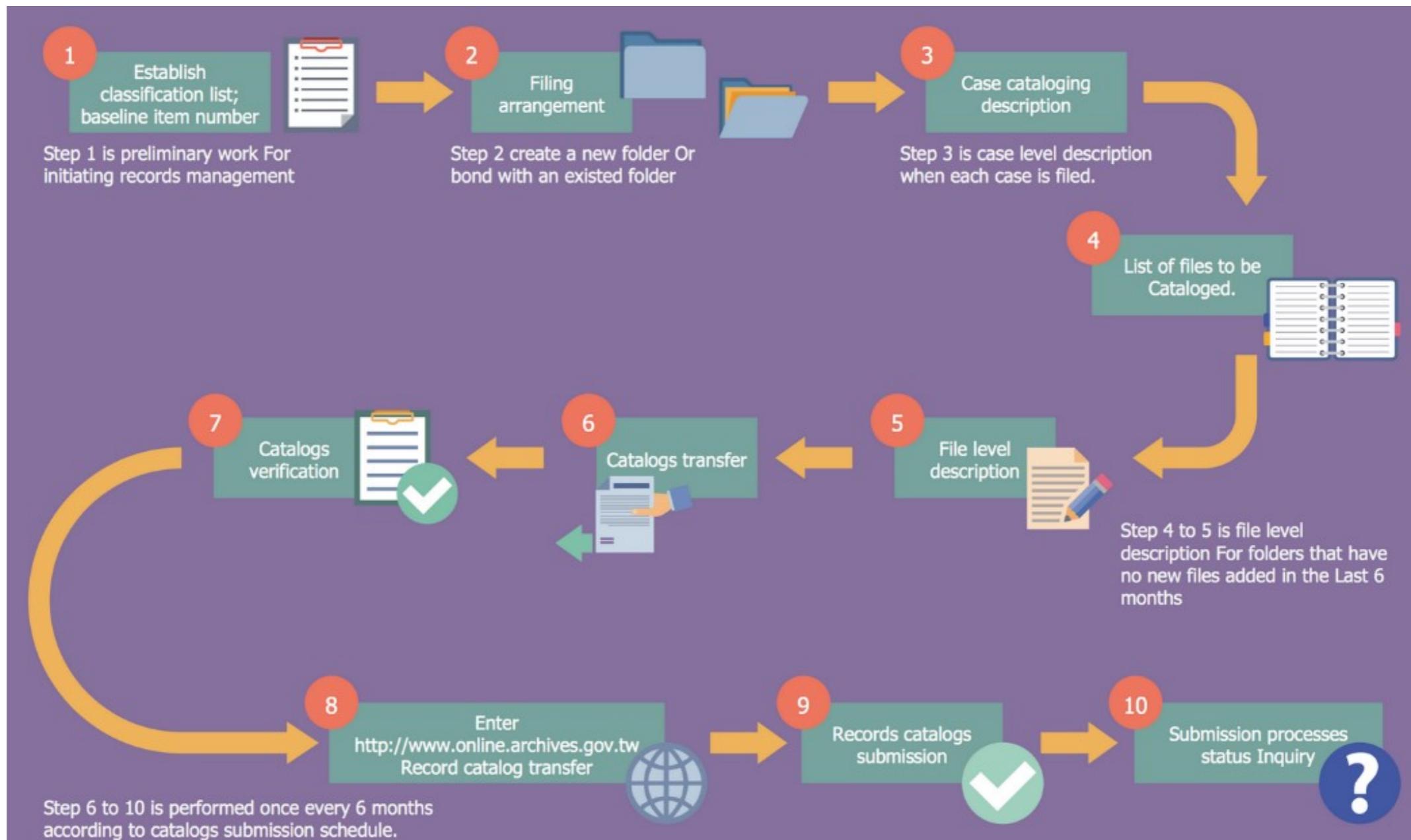
Business Process Model and Notation (BPMN)

Workshop



# Business Process/Workflow ?





# **Easy to understand !!**

## **(by ?)**

Create

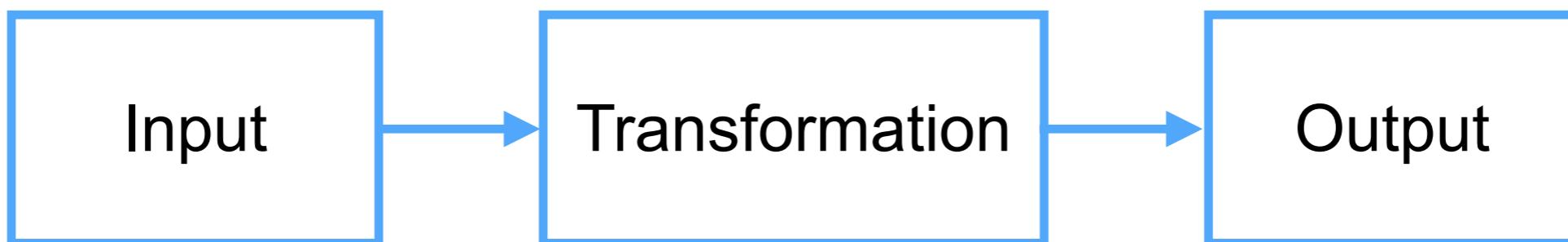
Read

Learn



# Business Process ?

**Set of structured activities or tasks** that are performed by people or systems in a specific sequence to achieve a particular **organizational goal or outcome**



# Business Process Cycle



# Key Characteristics

Goal-oriented

Repeatable

Structured  
(steps & rules)

Cross-functional

Measurable



# Types of Business Process

Core process

Supporting process

Management process



# Core Process

Core activities that deliver value and revenue  
Day-to-day activity of business

Manufacturing  
service

Customer  
service

Sales  
service

Order fulfillment



# Supporting Process

Enable core operations

HR

IT support

Accounting



# Management Process

Supervise and control other processes

Strategic  
planning

Budget  
management



# Process Visualization



# Process Visualization ?

Provide an end-to-end overview of a process flow including all the steps taken, sub-processes, activities, data inputs, data outputs and risk objects

Flowchart

Swimlane

**BPMN**

<https://research.aimultiple.com/process-visualization/>



# Benefits of process visualization

Improve understanding of workflow

Enhance communication (common language)

Process optimization

Standardization of process



# Types of Workflow Diagrams



# Types of Workflow Diagrams

Basic Flowchart

Event-Driven Process

Swimlane

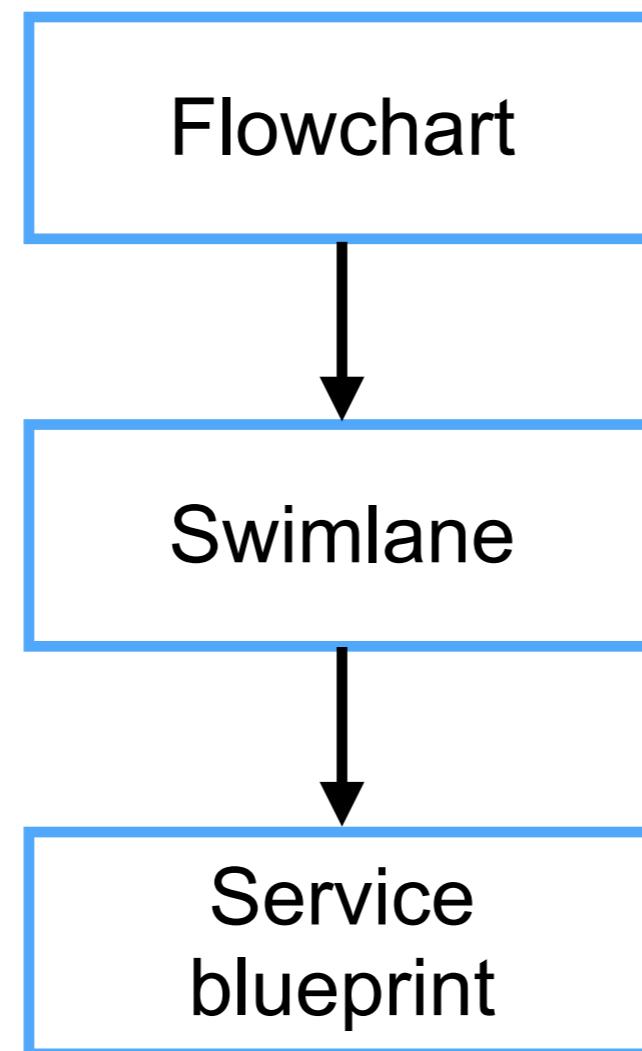
Business Process Modeling Notation (BPMN)

UML (Unified Modeling Language)

SIPOC (Supplier input process output customer)

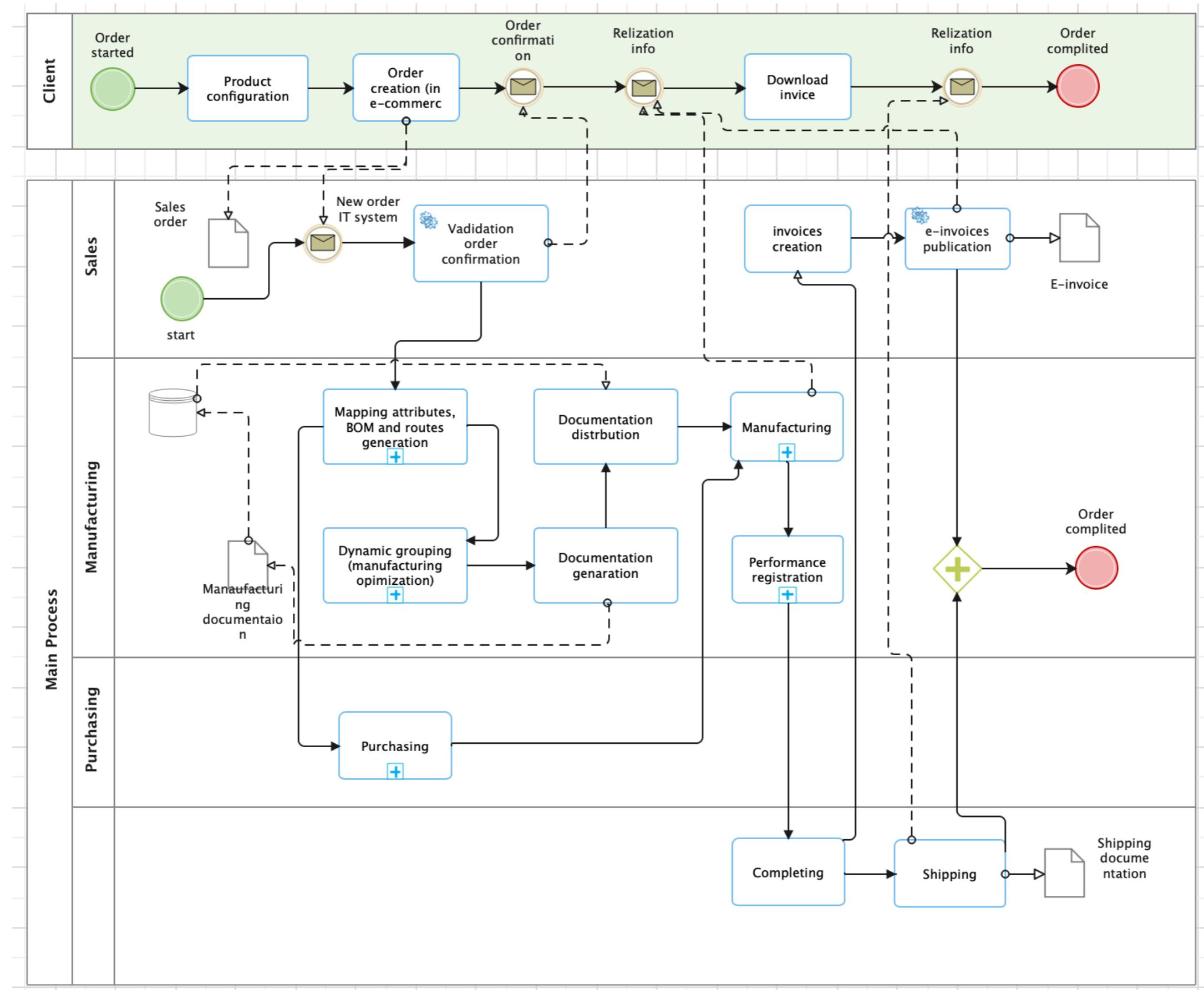


# Evolution of Diagrams



# **Business Process Model and Notation (BPMN)**





# BPMN

**Business Process Model and Notation**  
Standard for business process modeling

Designed to provide a standard notation readily understandable by all business stakeholders, business analysts and technical

Organizational structure

Functional breakdown

Data model

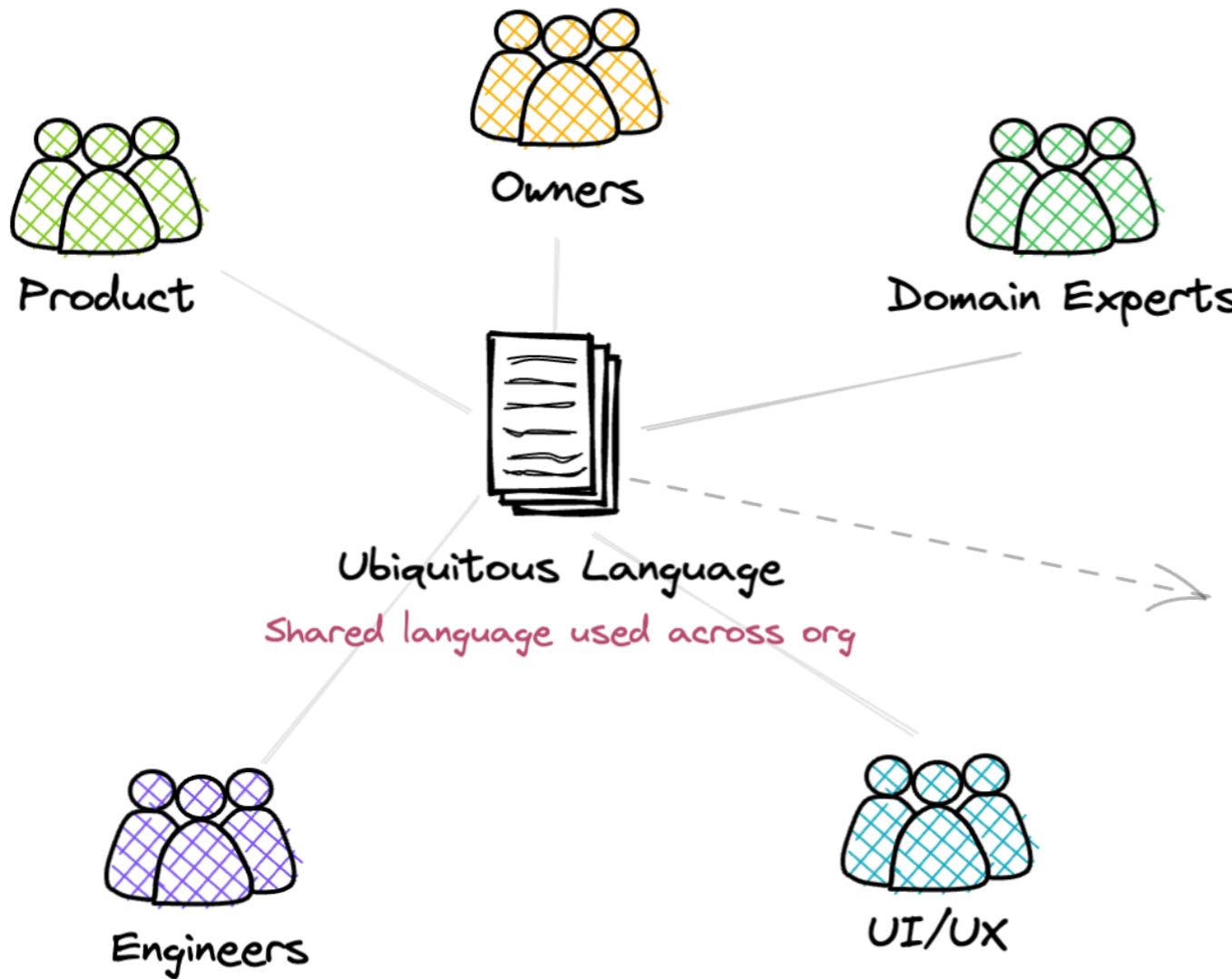
[https://en.wikipedia.org/wiki/Business\\_Process\\_Model\\_and\\_Notation](https://en.wikipedia.org/wiki/Business_Process_Model_and_Notation)



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# Ubiquitous/common Language



## What is Ubiquitous Language

1. Language of the business
2. Reduces domain translations
3. Improve communication
4. Single Language
5. Terms easy to understand
6. Precise and consistent
7. Eliminate the need for assumptions
8. Single meaning for each term
9. Part of DDD
10. Use when describing business domain

@boyney123

<https://eda-visuals.boyney.io/visuals/ubiquitous-language>



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# BPMN Elements

<https://www.signavio.com/wiki/process-design/bpmn/>



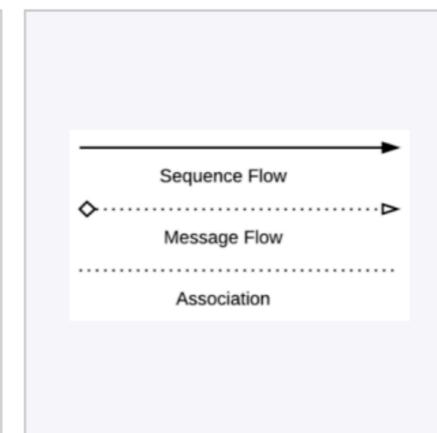
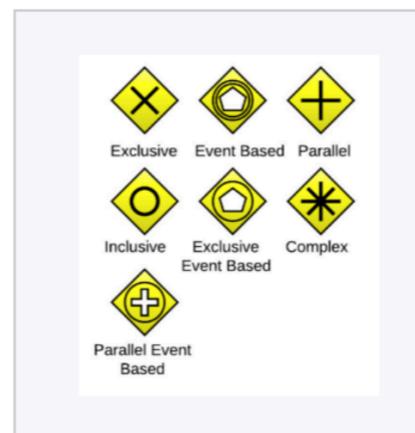
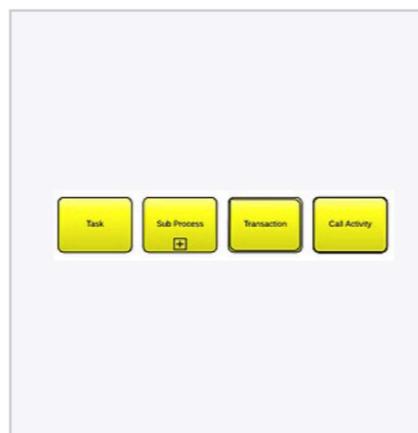
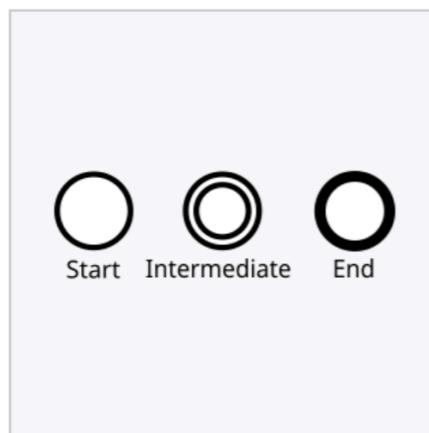
# BPMN Elements

BPMN uses a small set of symbols to represent the different parts of a business process



# BPMN (Notation)

## Flow objects and connecting object

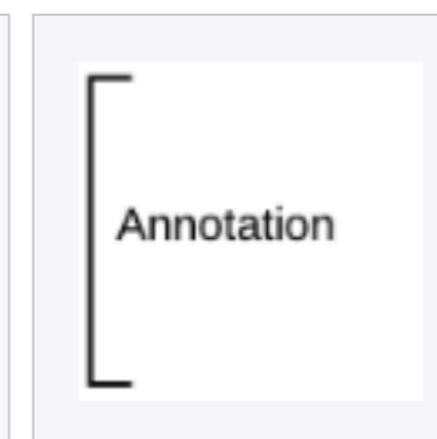
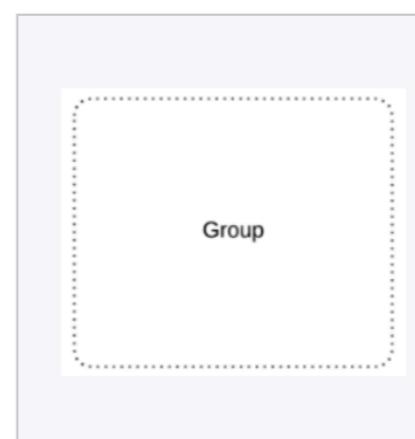
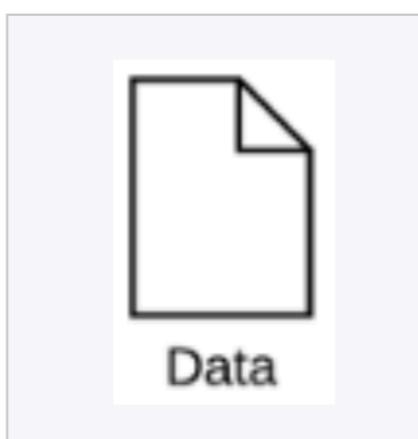
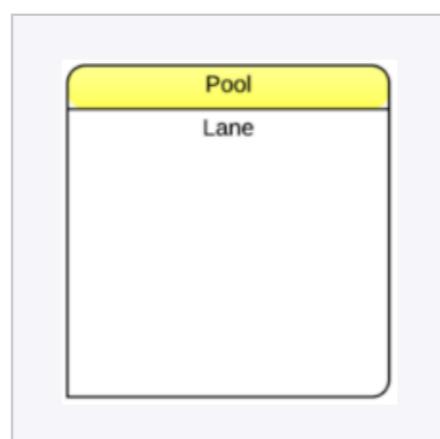


Event

Activity

Gateway

Connections



Swimlanes

Data objects

Groups

Annotation

[https://en.wikipedia.org/wiki/Business\\_Process\\_Model\\_and\\_Notation](https://en.wikipedia.org/wiki/Business_Process_Model_and_Notation)



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# BPMN (Notation)

Dividers, pool group objects into separate lane

They can combine actions by categories or share the responsibility of the participants in the process, as in our case



[https://en.wikipedia.org/wiki/Business\\_Process\\_Model\\_and\\_Notation](https://en.wikipedia.org/wiki/Business_Process_Model_and_Notation)

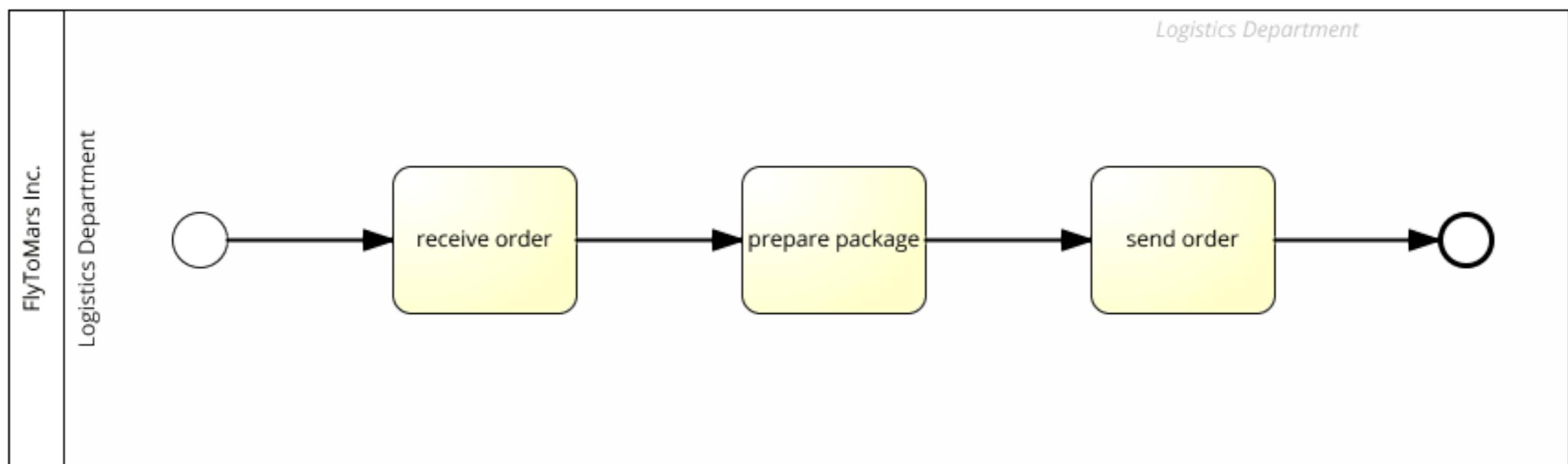


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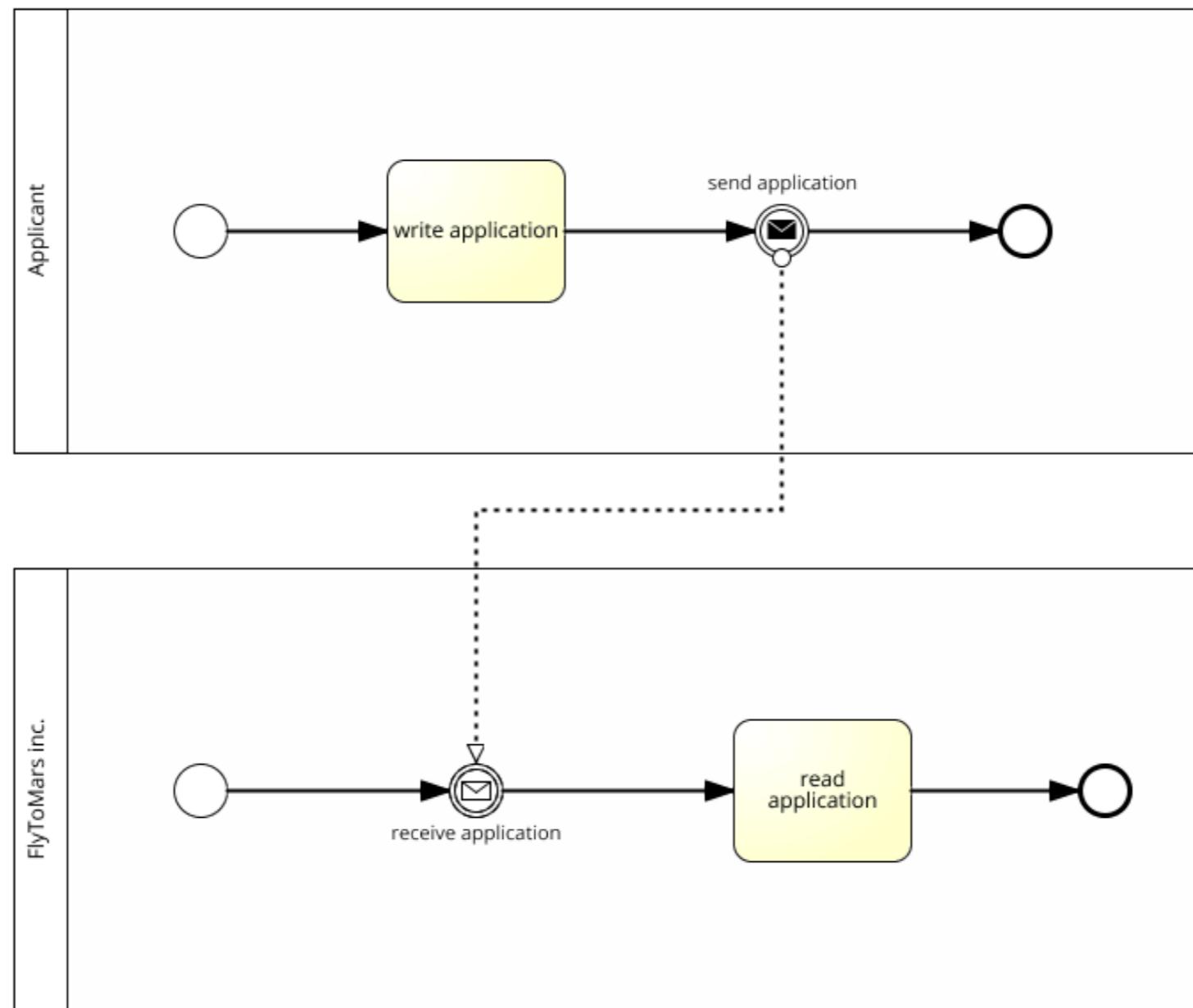
# 1. Events

Events are circles that mark things **happening** in a process. They show where a process begins, what interruptions or triggers occur along the way, and how it ends



# Intermediate Events

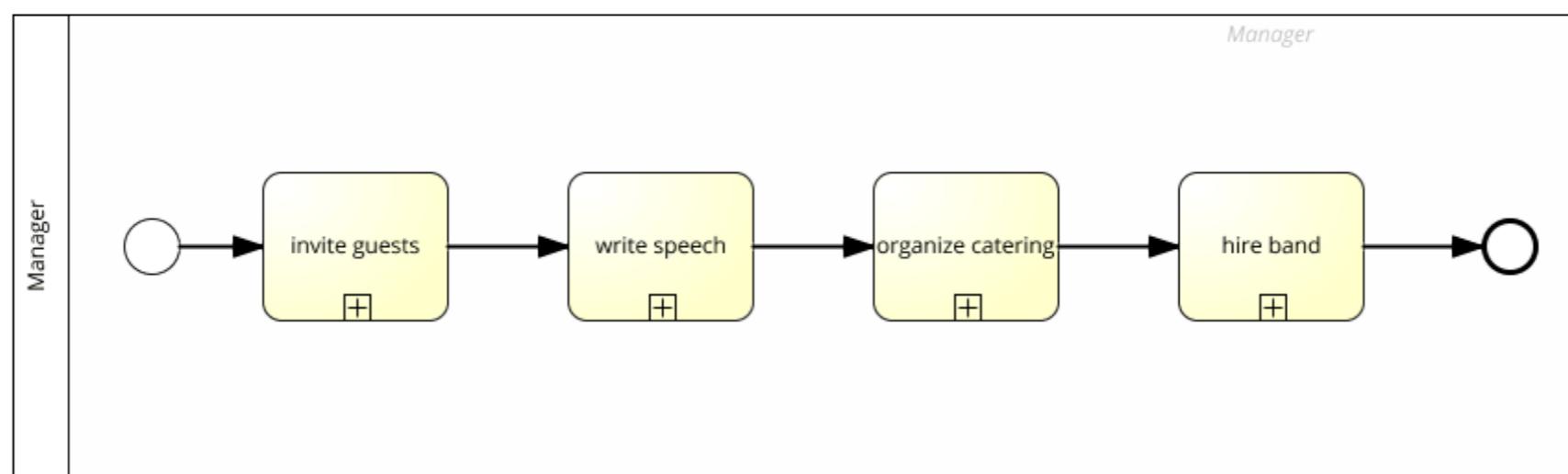
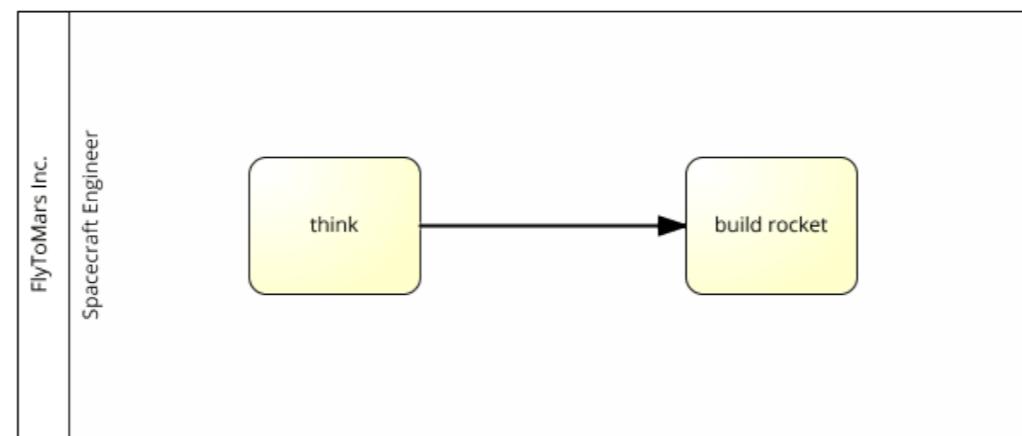
How does my process interact with its environment ?



# 2. Activities

Tasks and sub-processes

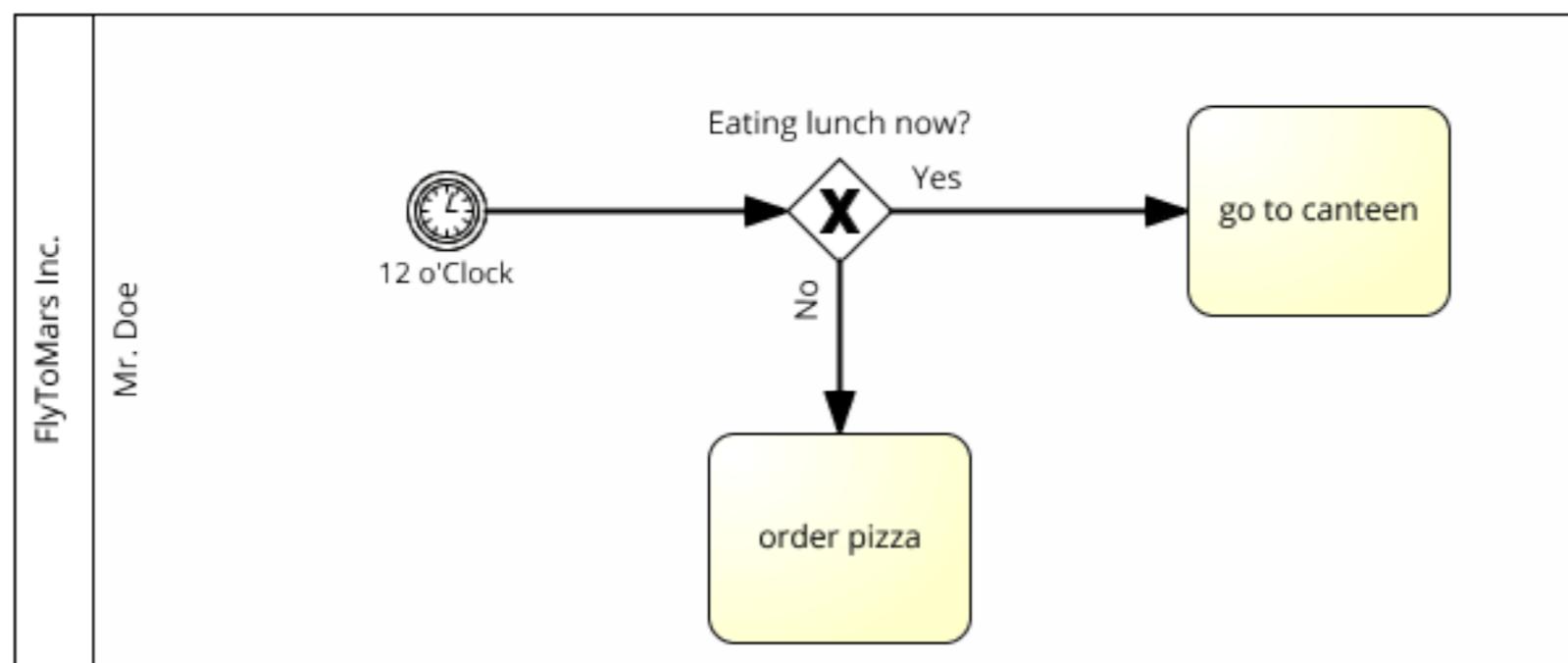
A **task** is a single unit of work, while a **sub-process** bundles multiple related tasks together



# 3. Gateways

Gateways, shown as diamonds, represent decision points or parallel paths in a process

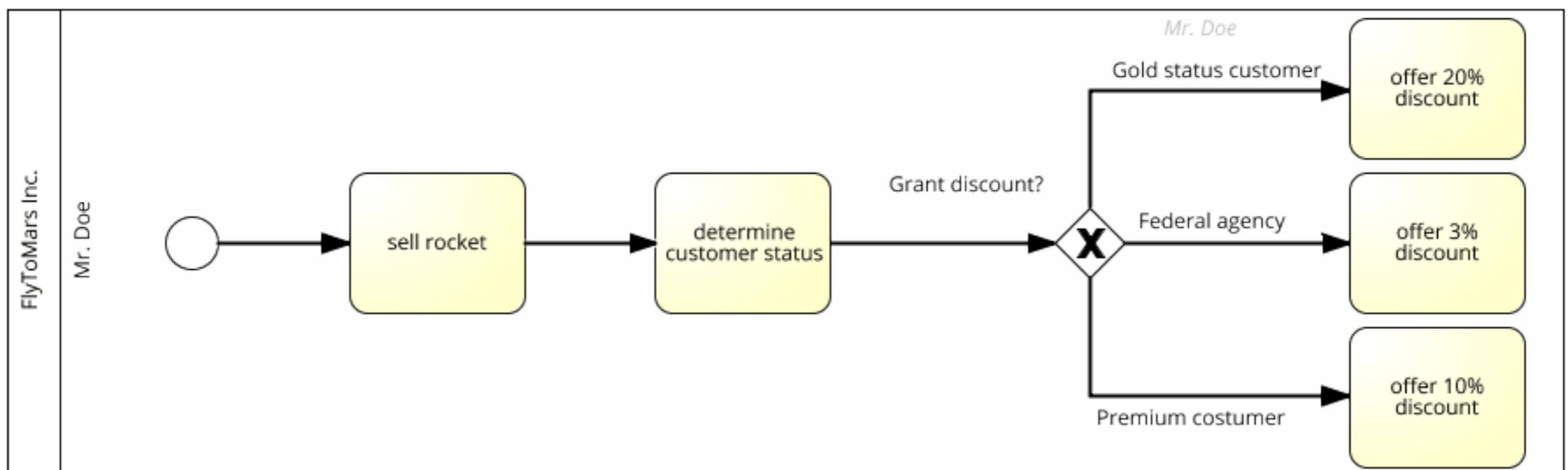
## Exclusive gateway



# 3. Gateways

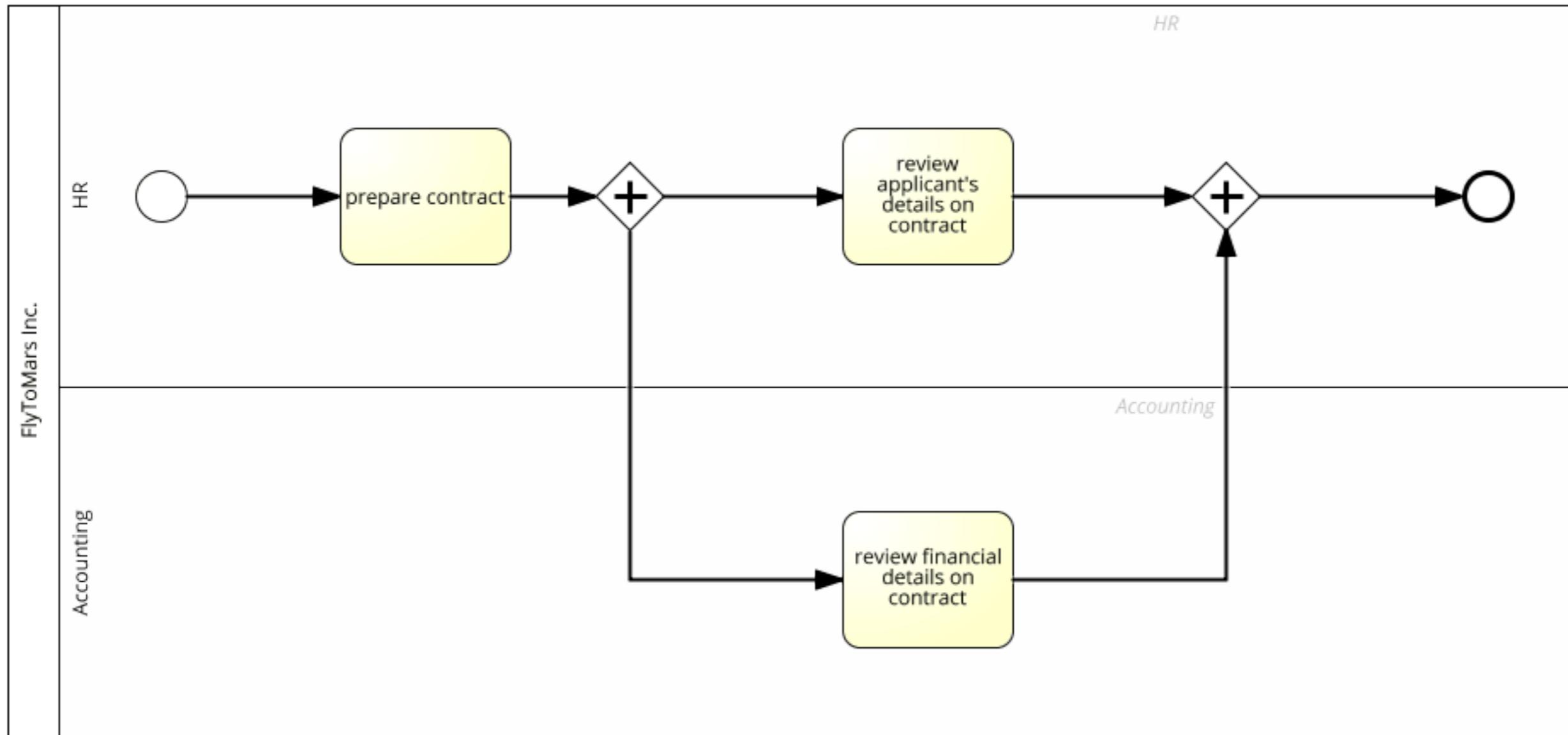
Gateways, shown as diamonds, represent decision points or parallel paths in a process

## Exclusive gateway



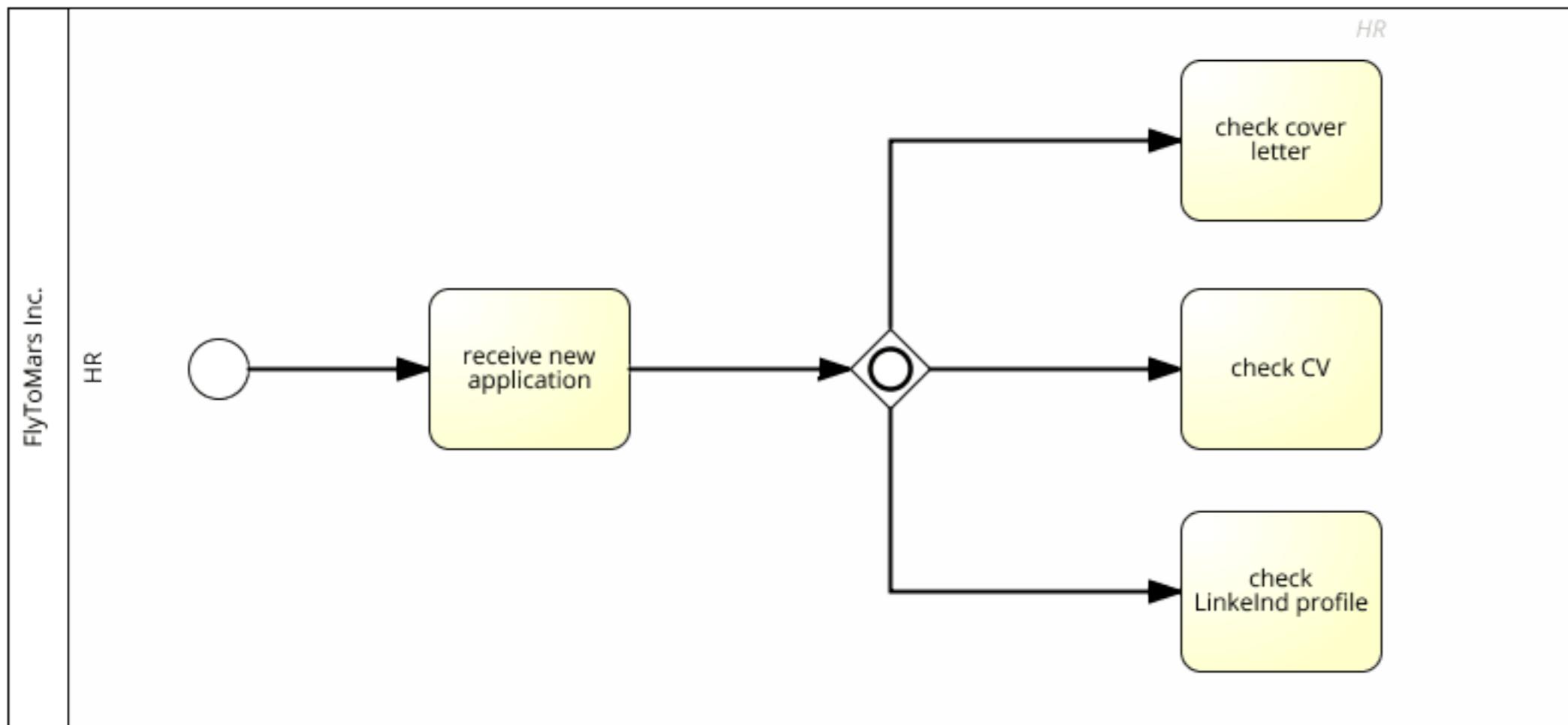
# 3. Gateways

## Parallel gateway (AND)



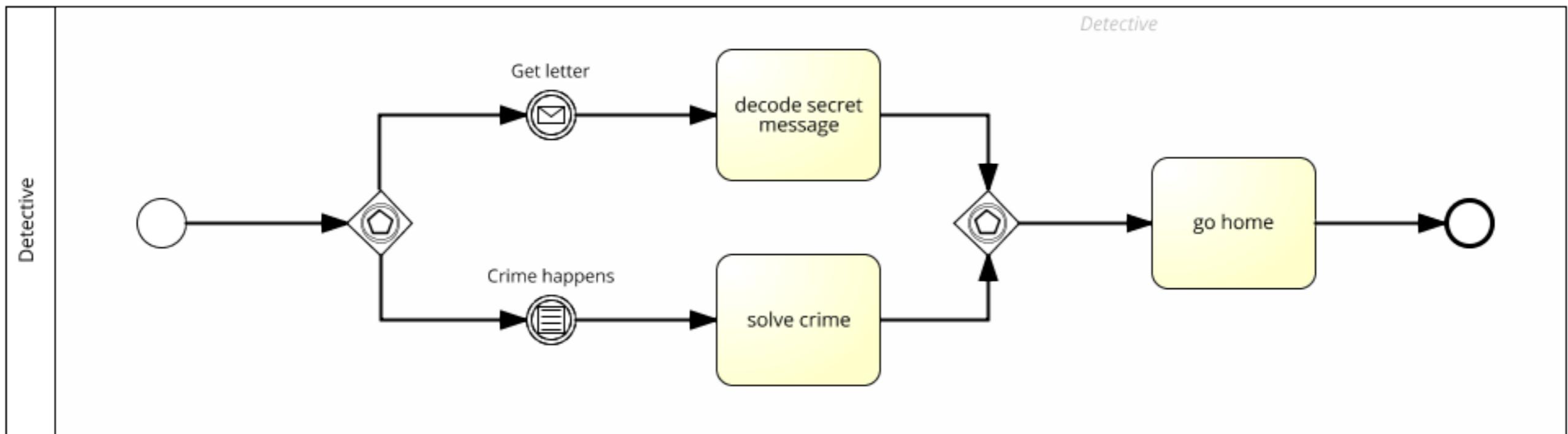
# 3. Gateways

Inclusive gateway (OR), one or more outcomes



# 3. Gateways

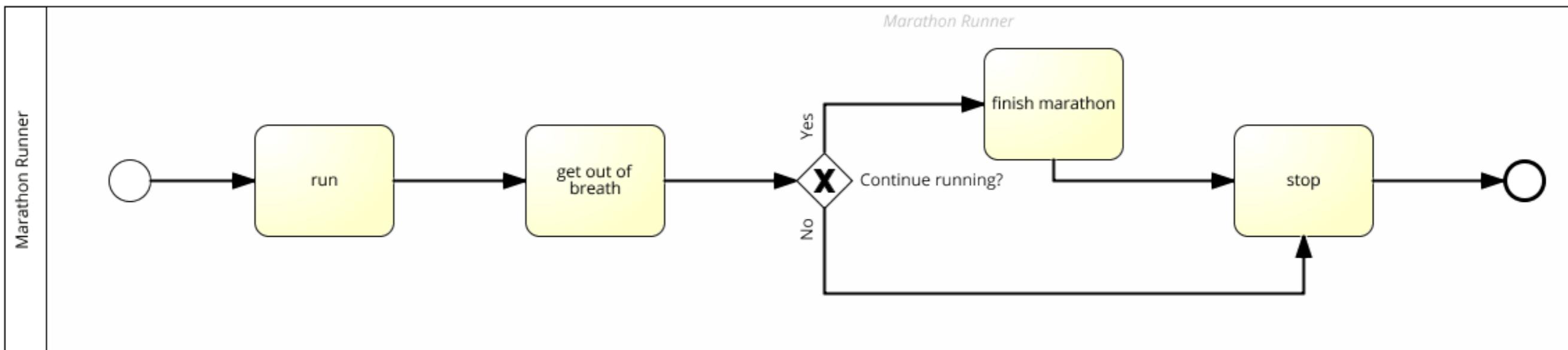
## Event-based gateway



# 4. Flows and connectors

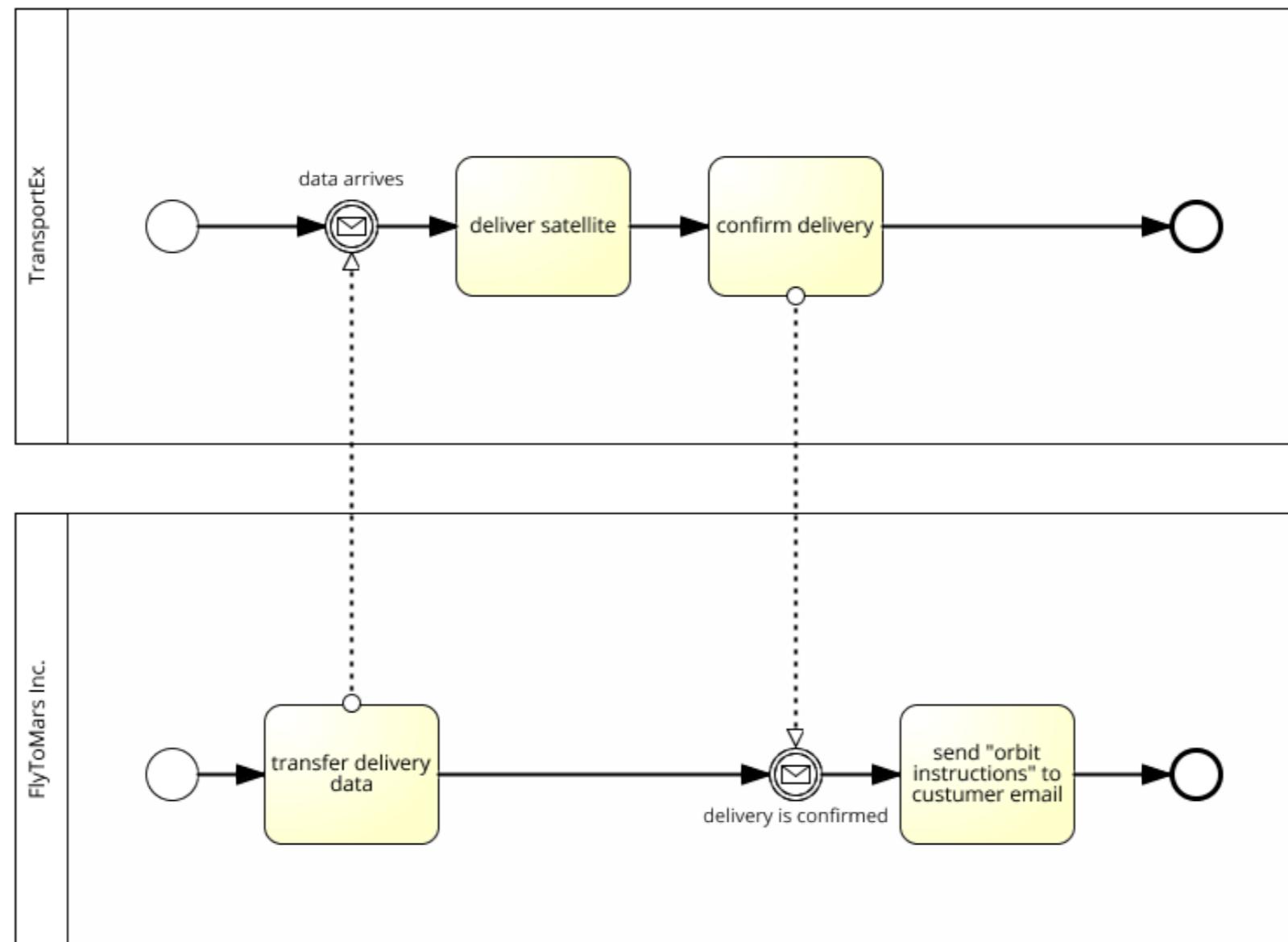
Flows are arrows that connect elements together and show the order of activities

## Sequence flow (→)



# Message flows

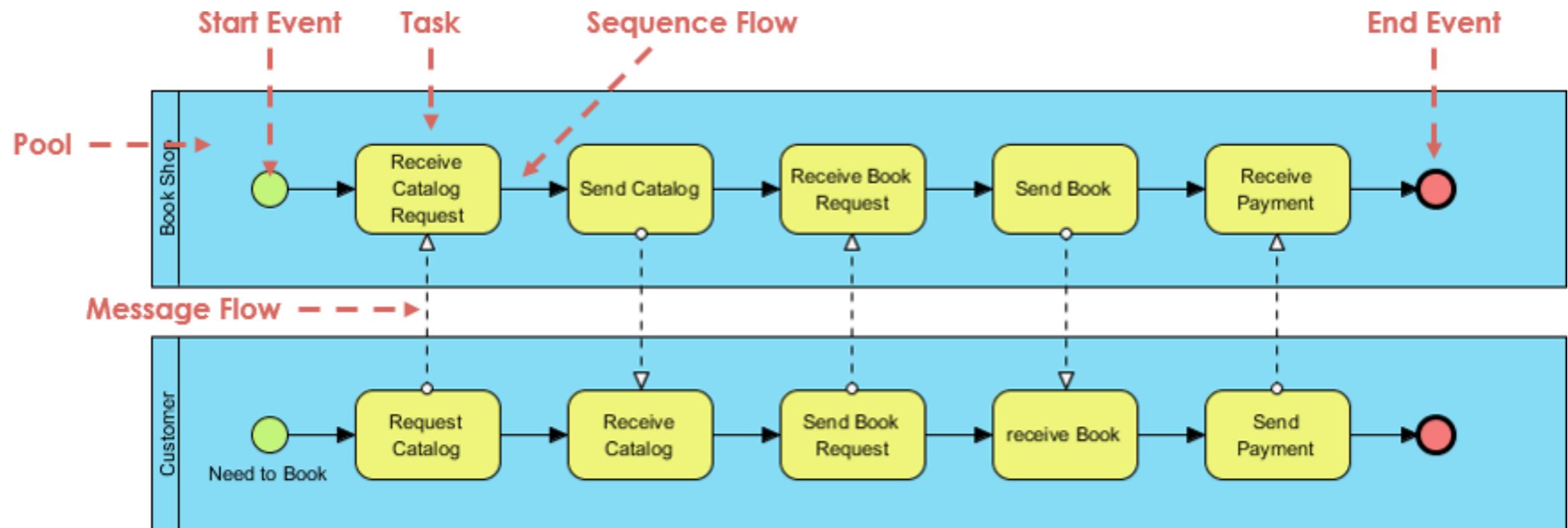
For communication that crosses the boundaries of your process' pool



# Example



# Book Shop



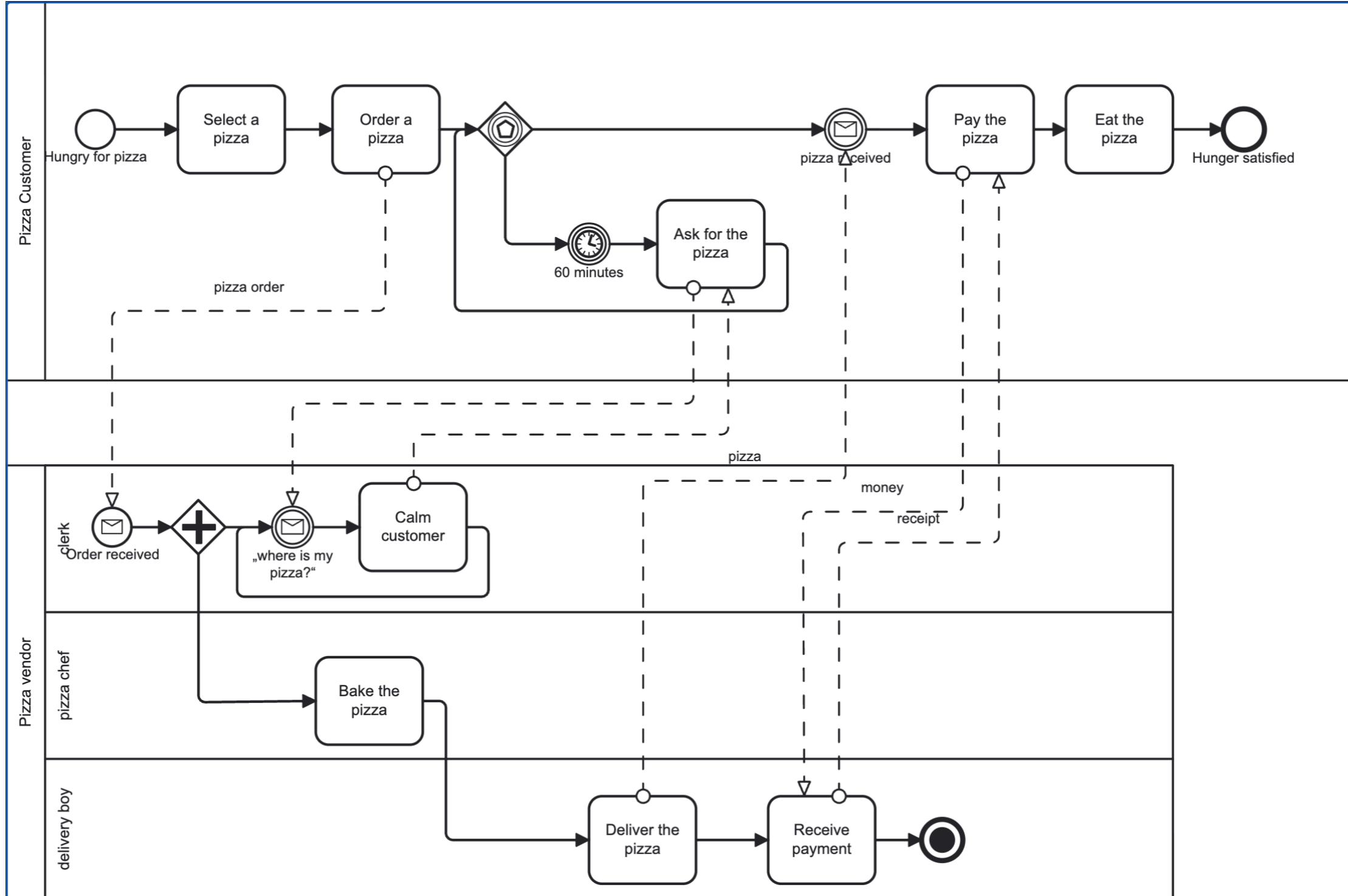
<https://circle.visual-paradigm.com/pools-and-swimlanes/>



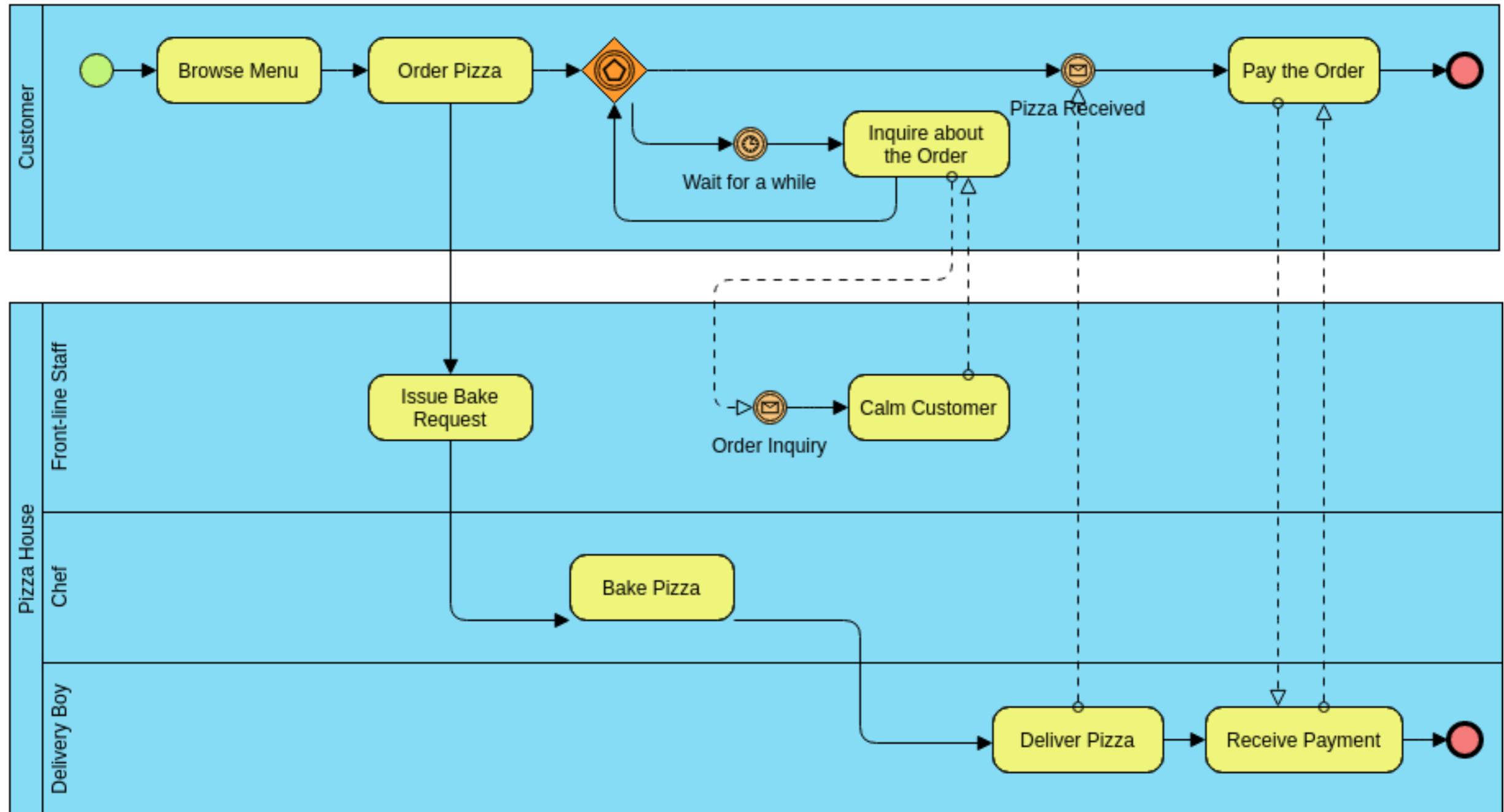
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# Pizza Order Process (1)



# Pizza Order Process (2)



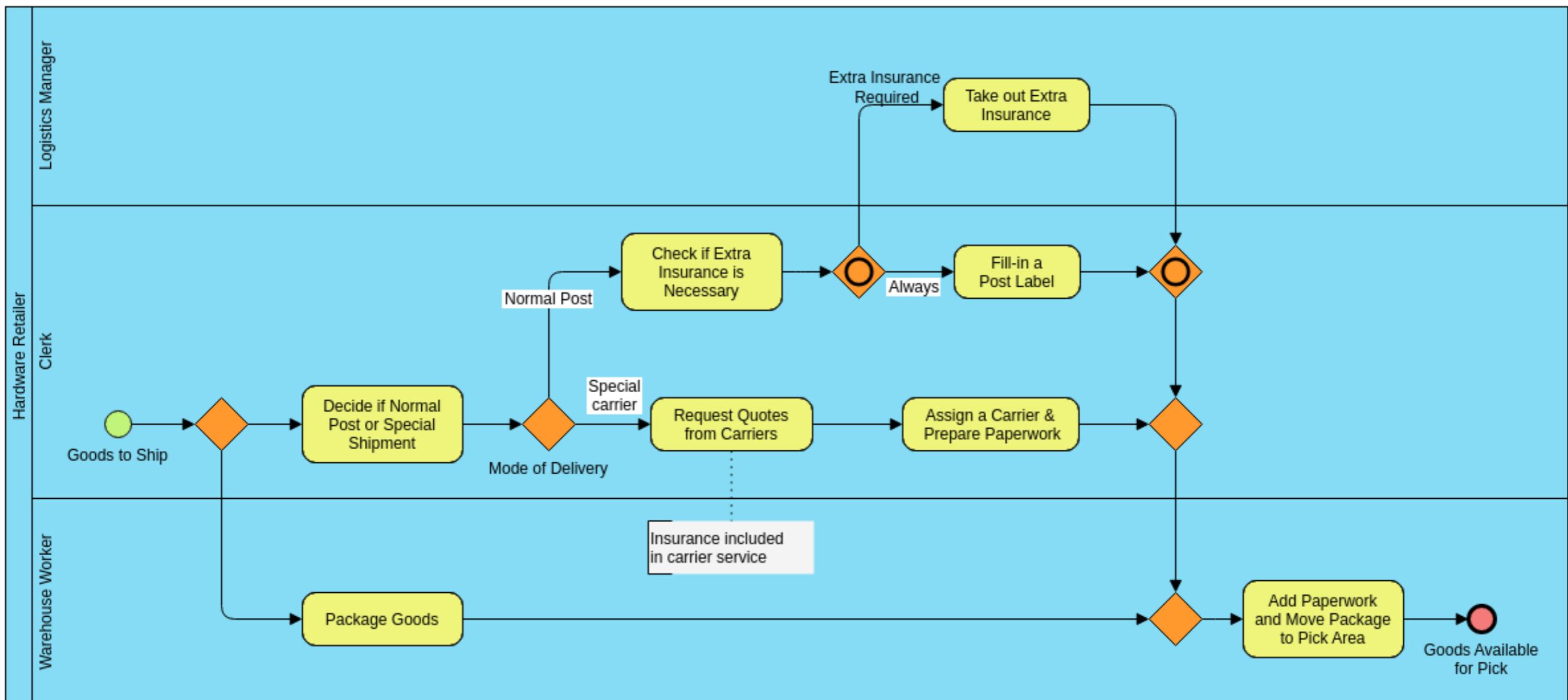
<https://online.visual-paradigm.com/diagrams/templates/business-process-diagram/pizza-order-process/>



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# Shipment Process



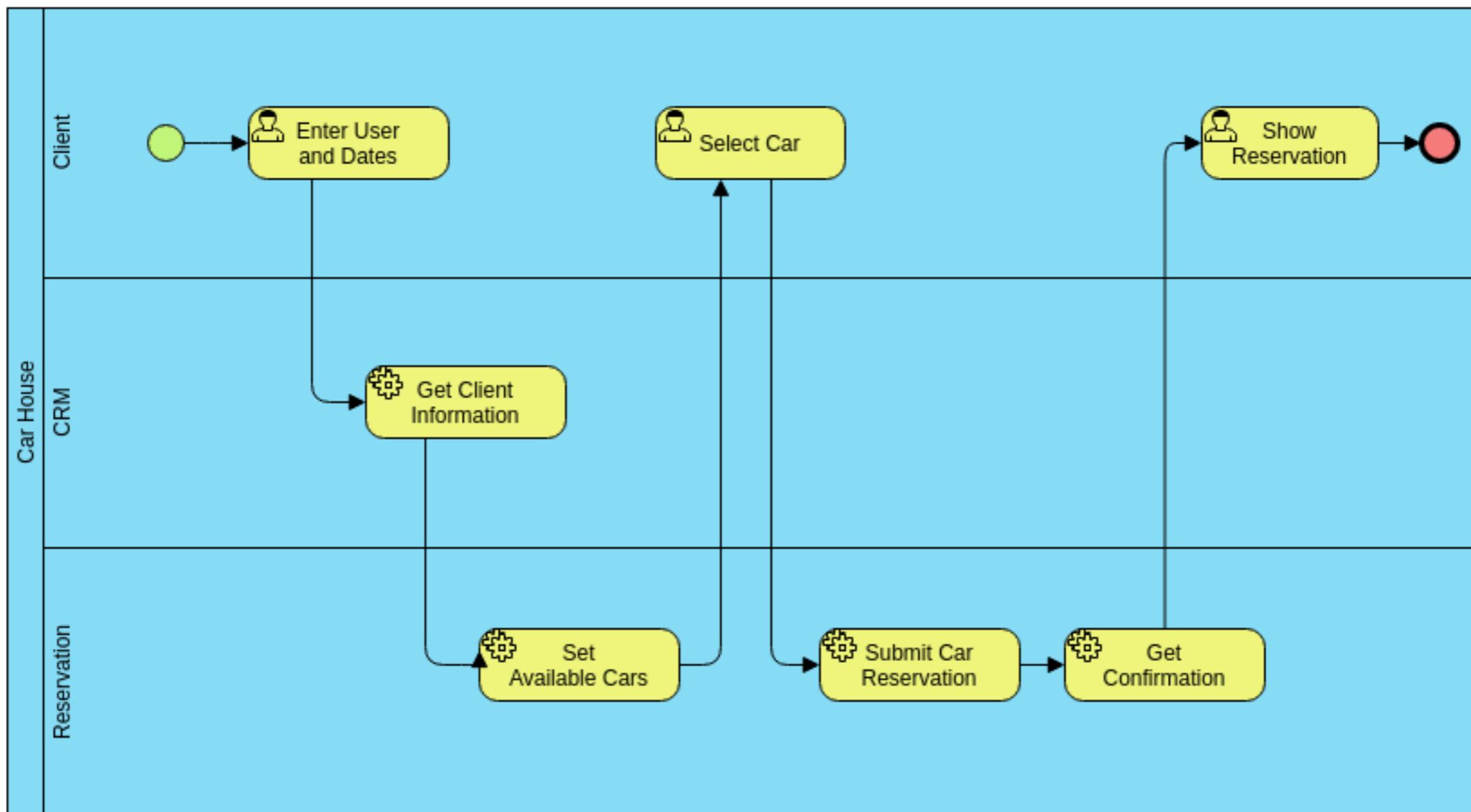
<https://online.visual-paradigm.com/diagrams/templates/business-process-diagram/shipment-process-of-a-hardware-retailer/>



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# Car Rental Process



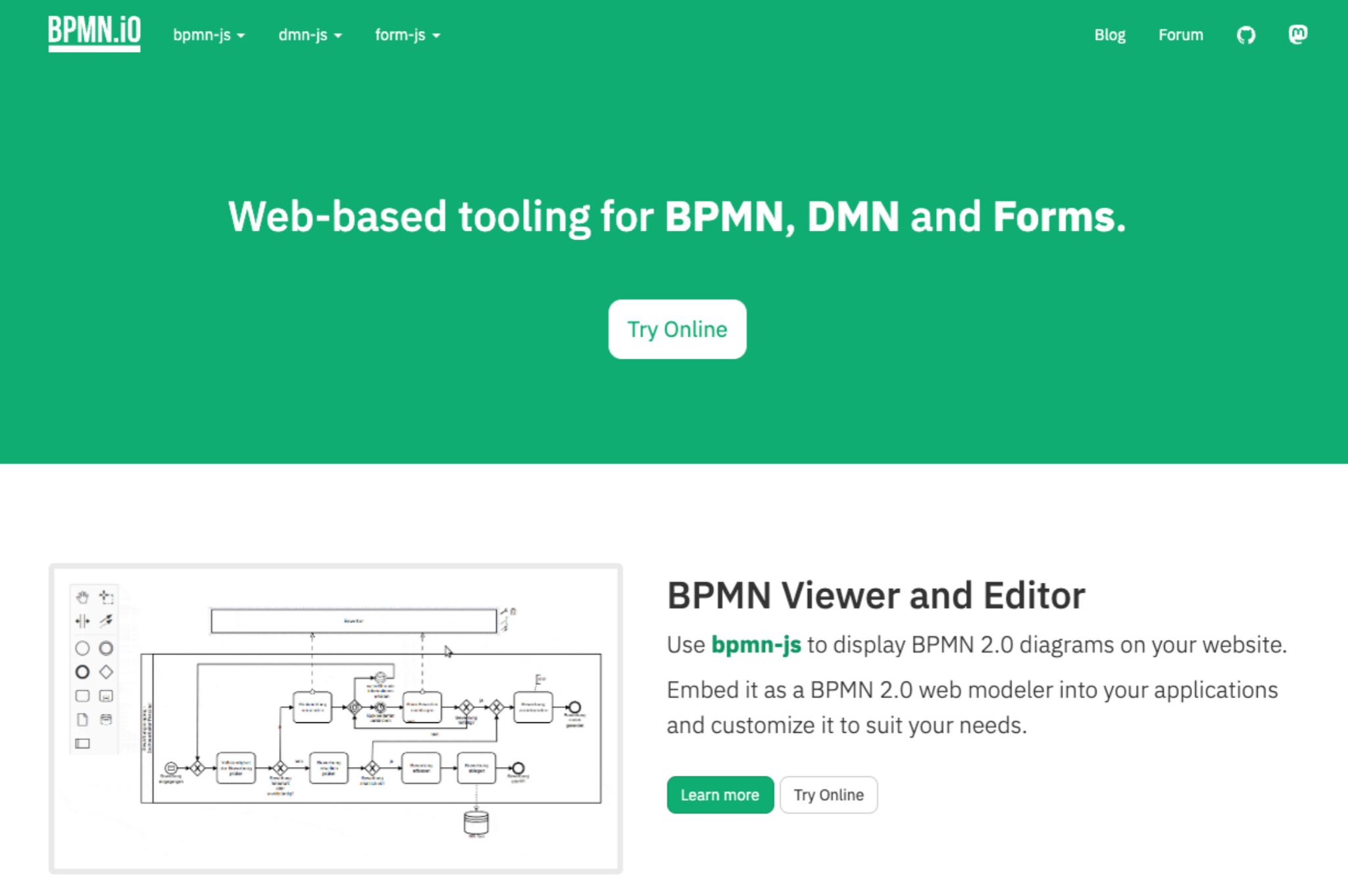
<https://online.visual-paradigm.com/diagrams/templates/business-process-diagram/shipment-process-of-a-hardware-retailer/>



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# Tools :: BPMN Web



The screenshot shows the BPMN.io website. At the top, there is a navigation bar with the logo 'BPMN.io' and dropdown menus for 'bpmn-js', 'dmn-js', and 'form-js'. On the right side of the navigation bar are links for 'Blog', 'Forum', and social media icons. Below the navigation bar, a green header section contains the text 'Web-based tooling for BPMN, DMN and Forms.' and a 'Try Online' button. The main content area features a BPMN diagram within a web-based editor interface. The diagram includes a 'Start' node, various activities like 'Monitoring plan', 'Monitoring plan (2)', 'Monitoring plan (3)', 'Monitoring plan (4)', 'Monitoring plan (5)', and 'Monitoring plan (6)', and a 'End' node. There are also decision diamonds and a database icon. To the left of the diagram is a toolbar with icons for zooming, selecting, and other editing functions. To the right of the diagram, there is a section titled 'BPMN Viewer and Editor' with the following text: 'Use **bpmn-js** to display BPMN 2.0 diagrams on your website. Embed it as a BPMN 2.0 web modeler into your applications and customize it to suit your needs.' Below this text are two buttons: 'Learn more' and 'Try Online'.

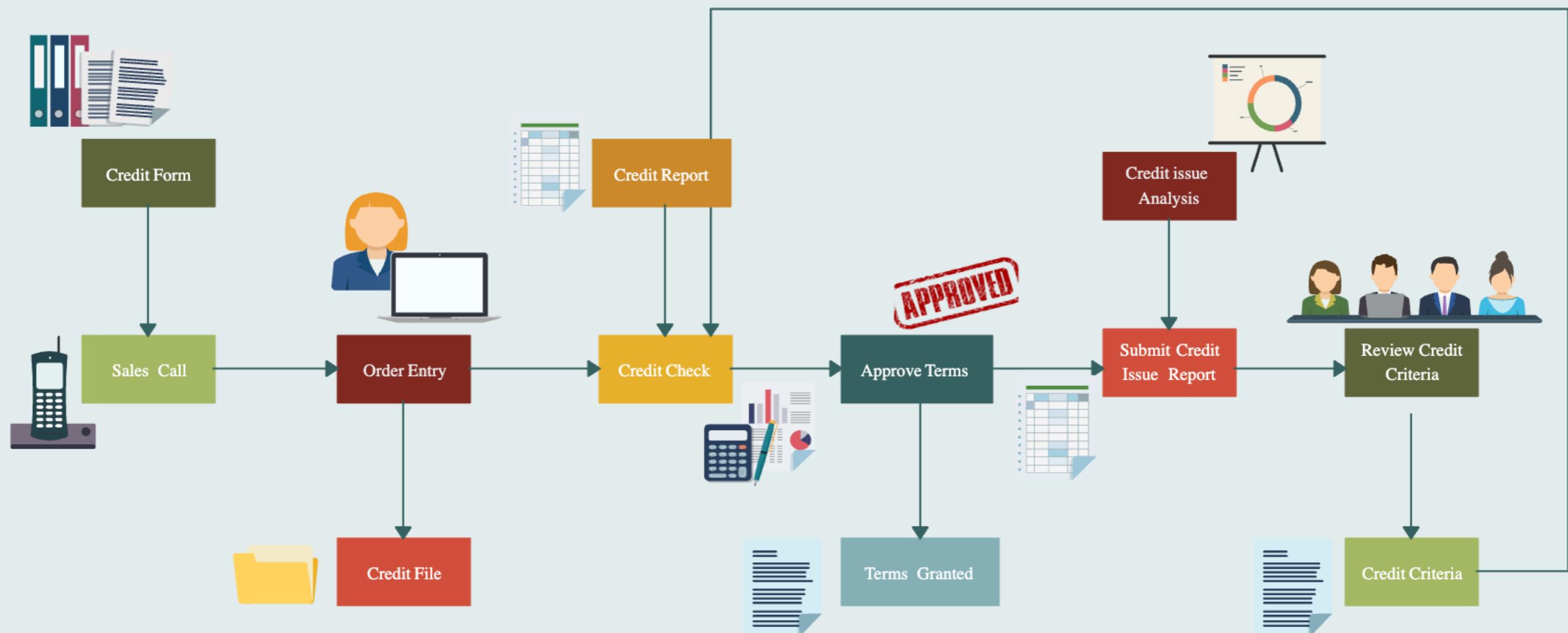
<https://bpmn.io/>



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# Workflow Diagram



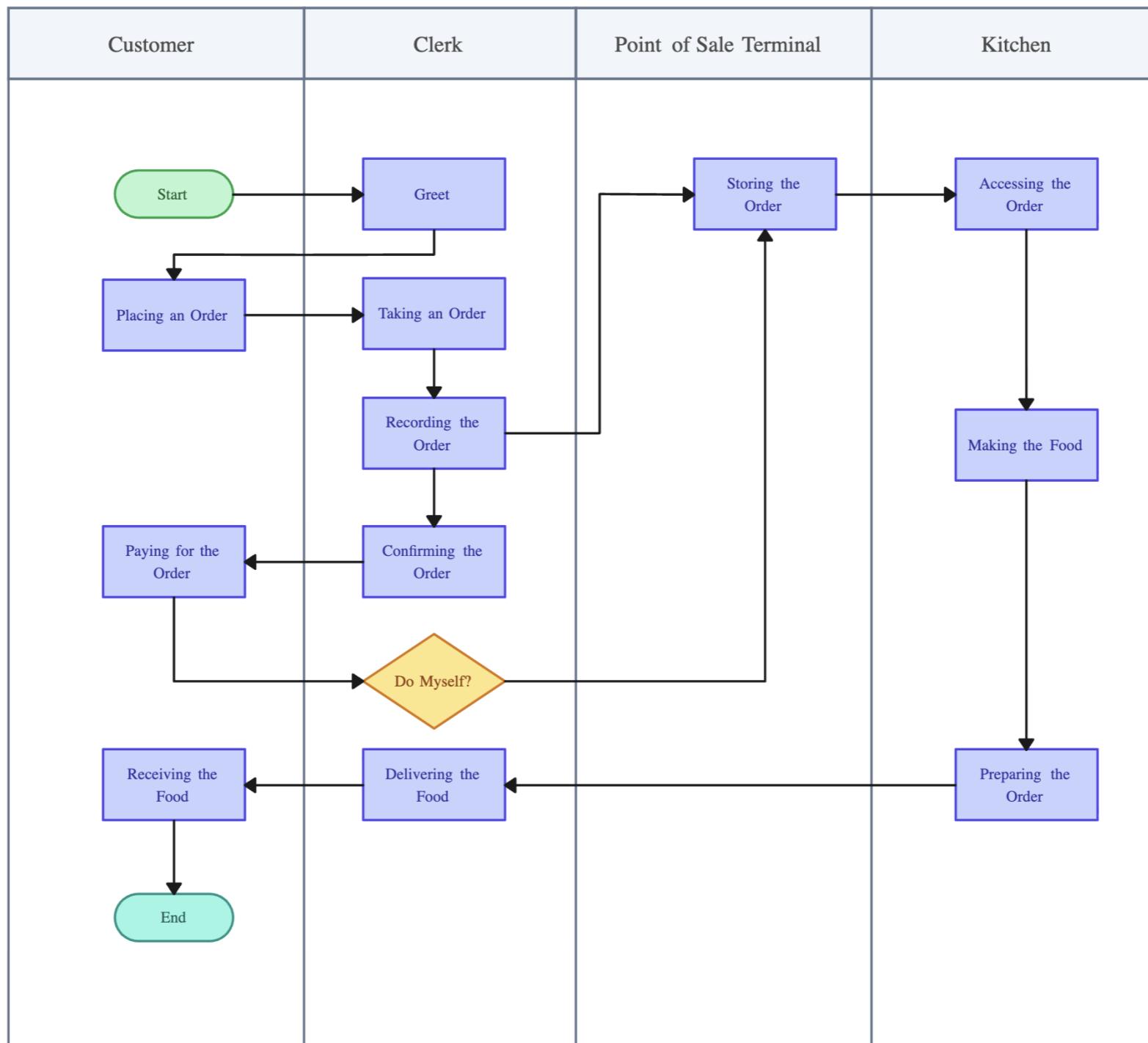
<https://creately.com/guides/workflow-visualization/>



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# Swimlane Diagram



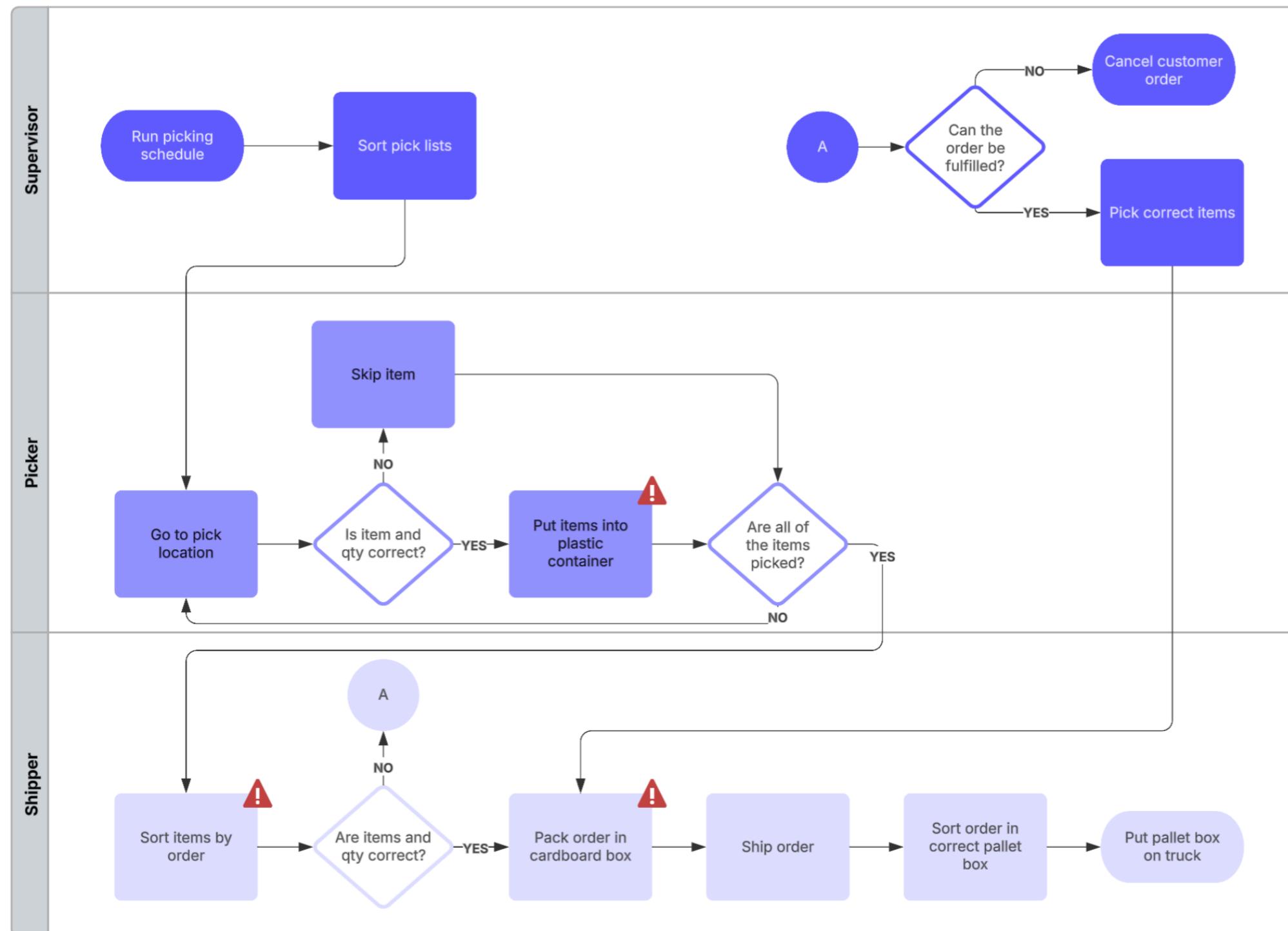
<https://creately.com/guides/workflow-visualization/>



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# Flowchart and Swimlane



<https://www.lucidchart.com/blog/3-diagrams-to-make-your-processes-more-visual>



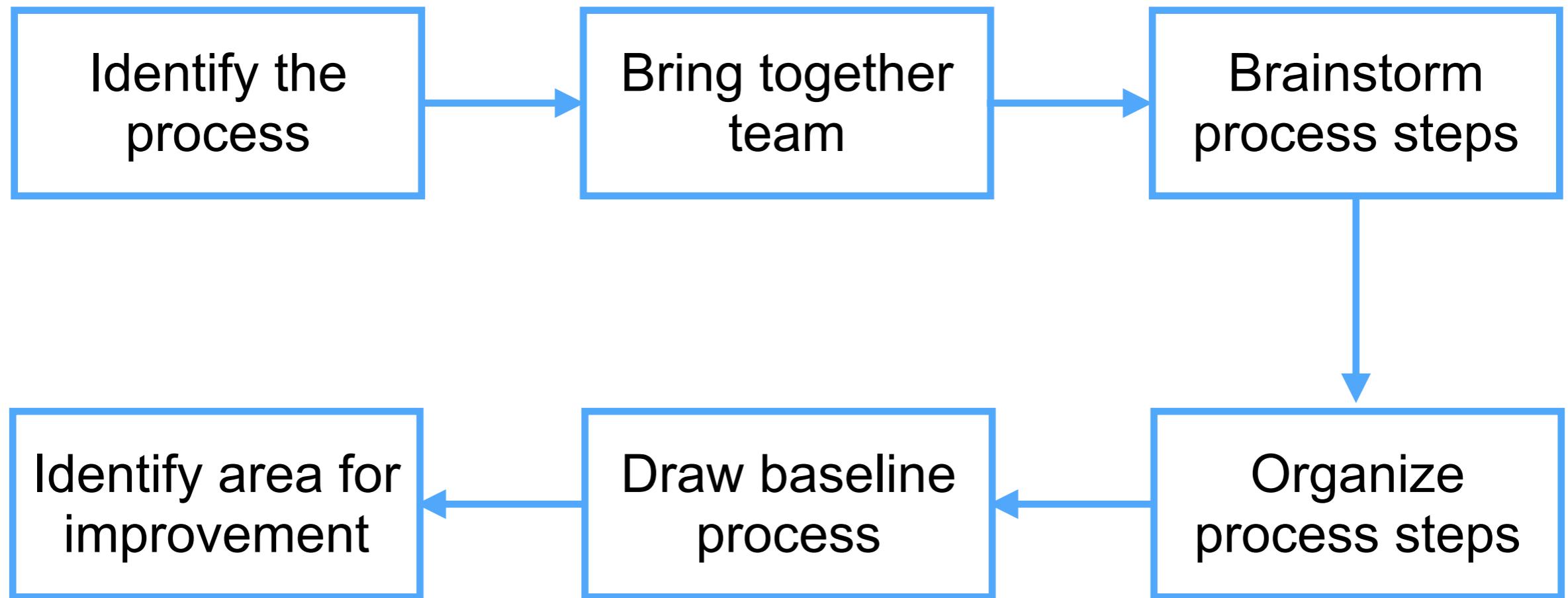
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# Steps of workshop



# Steps of Process map



<https://creately.com/guides/process-mapping-guide/>



# 1. Define strategy and scope

This initial phase sets the foundation for the entire project by defining its purpose, goals, and boundaries.

Identify  
objective

Establish  
scope

Secure  
Buy-in



# 2. Discovery gather information

Collect data and gather insights to understand how the process currently works (as-is state)

Collect data

Observe process

Identify pain point



# 3. Mapping visualize workflow

Mapping translates the gathered information into a **clear visual representation**.

This step helps everyone involved see the bigger picture and identify issues

Create the map

Identify key components

Highlight handoffs



# 4. Visualization communicate

The final stage is about presenting the analysis and new workflow in a compelling and easy-to-understand format

Present change

Highlight impact

Monitor and refine

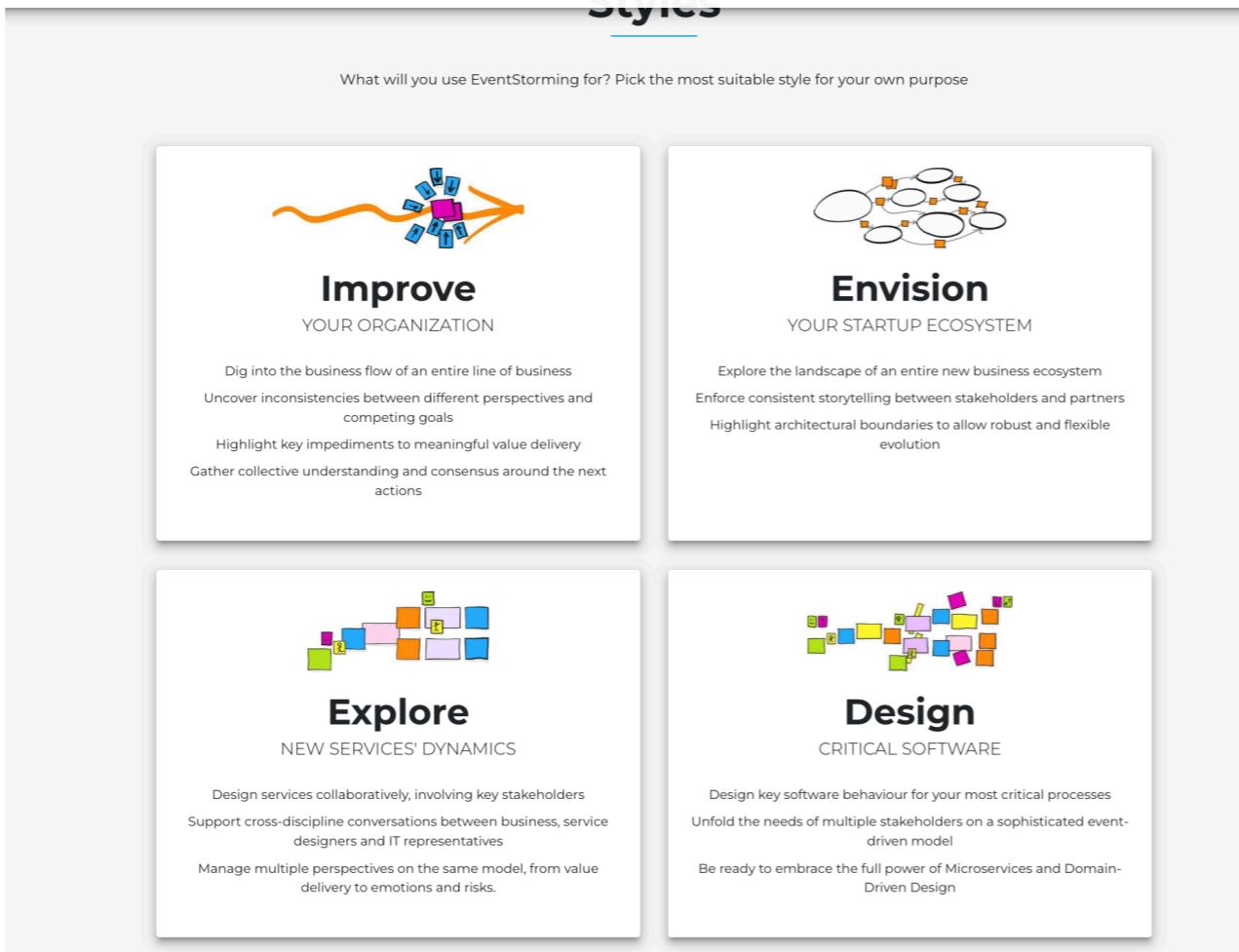


# Start of workshop



# Event Storming

Collaborative, hands-on session used to quickly explore and map complex business domains



The screenshot shows the 'Styles' section of the Event Storming website. The top navigation bar includes links for STYLES, SERVICES, RESOURCES, WORKSHOPS, BOOK, and CONTACT US. The 'Styles' link is underlined. Below the navigation, a sub-header reads: 'What will you use EventStorming for? Pick the most suitable style for your own purpose'. The page is divided into four main sections, each with an icon and a title:

- Improve** YOUR ORGANIZATION: Features an icon of a central node connected to several lines. Description: Dig into the business flow of an entire line of business, Uncover inconsistencies between different perspectives and competing goals, Highlight key impediments to meaningful value delivery, Gather collective understanding and consensus around the next actions.
- Envision** YOUR STARTUP ECOSYSTEM: Features an icon of a cluster of nodes connected by lines. Description: Explore the landscape of an entire new business ecosystem, Enforce consistent storytelling between stakeholders and partners, Highlight architectural boundaries to allow robust and flexible evolution.
- Explore** NEW SERVICES' DYNAMICS: Features an icon of a grid of colored squares. Description: Design services collaboratively, involving key stakeholders, Support cross-discipline conversations between business, service designers and IT representatives, Manage multiple perspectives on the same model, from value delivery to emotions and risks.
- Design** CRITICAL SOFTWARE: Features an icon of a complex network of colored squares. Description: Design key software behaviour for your most critical processes, Unfold the needs of multiple stakeholders on a sophisticated event-driven model, Be ready to embrace the full power of Microservices and Domain-Driven Design.

<https://www.eventstorming.com/>



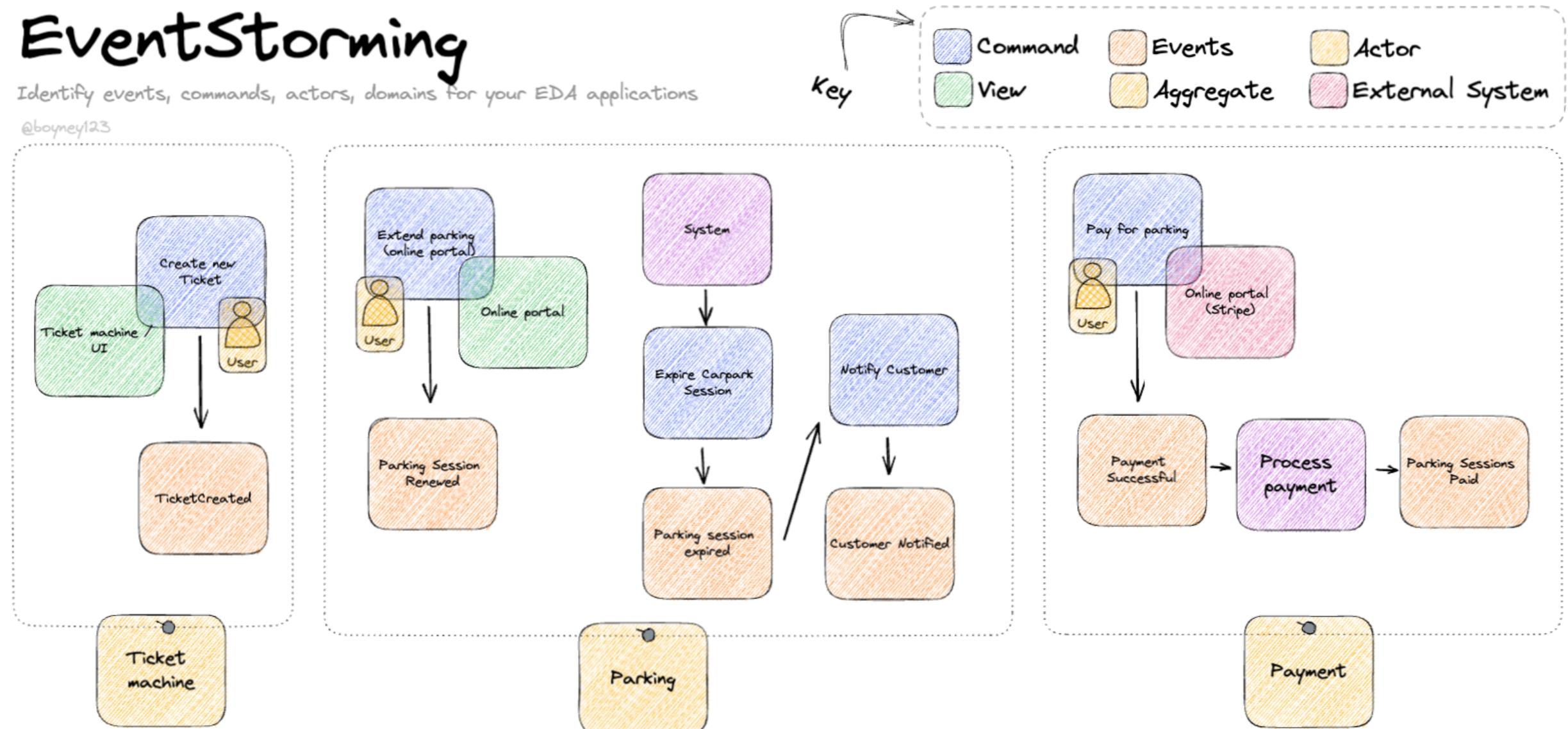
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# Event Storming

## EventStorming

Identify events, commands, actors, domains for your EDA applications  
@boyney123



<https://eda-visuals.boyney.io/visuals/event-storming>



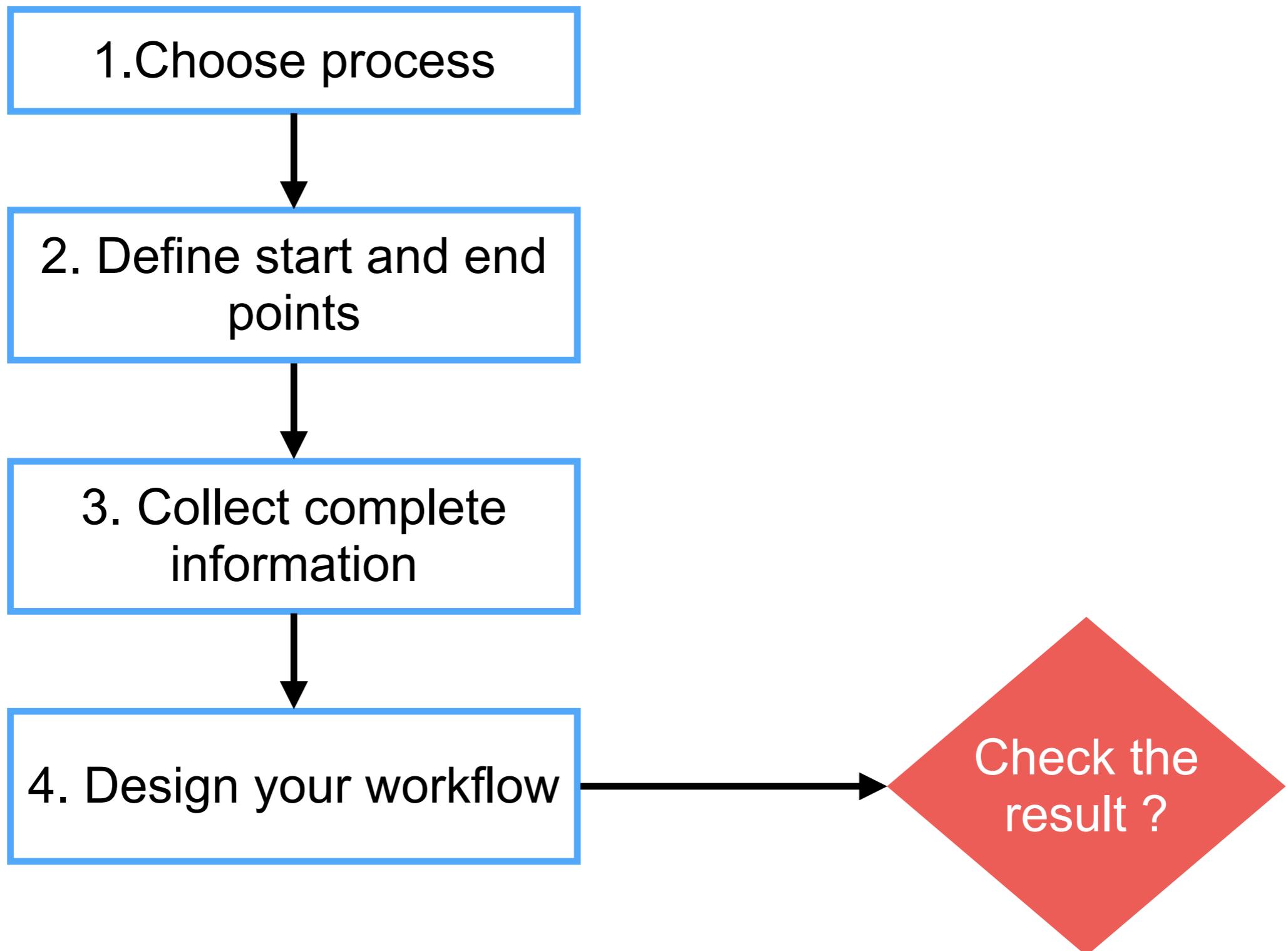
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# How to create a workflow diagram ?



# Steps



# Q/A



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