BPMN Methods: An Introduction to Top-Down Modeling

While BPMN specification ensures a wide variety of elements that can be used to create a desired model, it does not provide any methodology. However, the need to standardize the process of creating BPMN models created many methodologies by many different analysts. In this poster we summarized and extended the most basic steps, which are concurrent throughout most of the methodologies. Additionally, some basic examples are provided.

Define the Scope of the Process

This is a strictly analytical step, where we identify the scope of the process with its corresponding start and end points. We need to go into details, e.g. are there several starting points or several endings to a process?
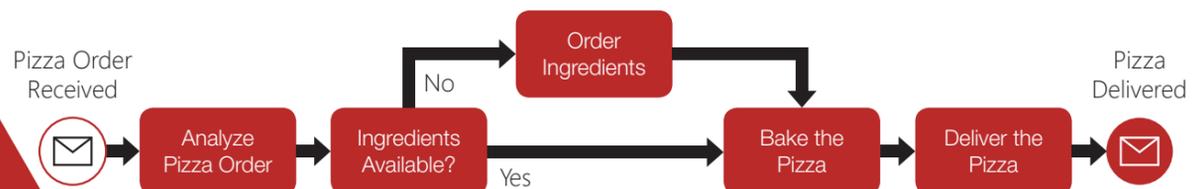
1

Define Activities at the Highest Level

In this step, we want to define the most basic Activities at the highest level. Such Activities are usually Sub-Processes, which will be further divided into details in the following steps.
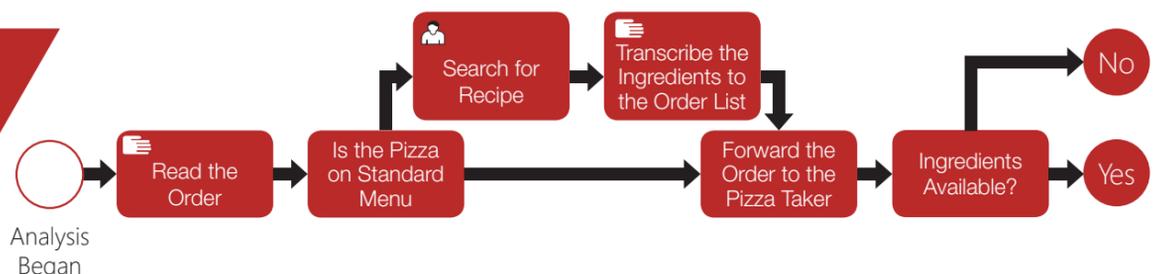
2

Analyze Pizza Order → Order Ingredients → Bake the Pizza → Deliver the Pizza

Create Top-Level BPMN Digram

At this level, we can model a complete process with all the available BPMN elements. Activities should match the ones identified in the previous step.

3

Pizza Order Received → Analyze Pizza Order → Ingredients Available? — No → Order Ingredients → Bake the Pizza → Deliver the Pizza → Pizza Delivered
Ingredients Available? — Yes → Bake the Pizza

Expand Sub-Process

Each Sub-Process Activity from the top-level BPMN diagram gets its corresponding BPMN model, with all the necessary details. We can include additional Sub-Processes in our expanded diagram. If necessary, we can also include lanes in the diagrams.

4

Analysis Began → Read the Order → Is the Pizza on Standard Menu → Search for Recipe → Transcribe the Ingredients to the Order List → Forward the Order to the Pizza Taker → Ingredients Available? → No / Yes

Add Additional Participants

In this step, we add additional participants in form of either black-box or white-box Pools, depending on the level of details we want to capture. We can represent the collaboration between the processes by using Message Flows. Number of messages in the Top-level BPMN diagram should match the number of messages in the Sub-Process expansion.

5

Supplier
Pizza Order Received → Analyze Pizza Order → Ingredients Available? — No → Order Ingredients → Bake the Pizza → Deliver the Pizza → Pizza Delivered
Ingredients Available? — Yes → Bake the Pizza
Supplier