

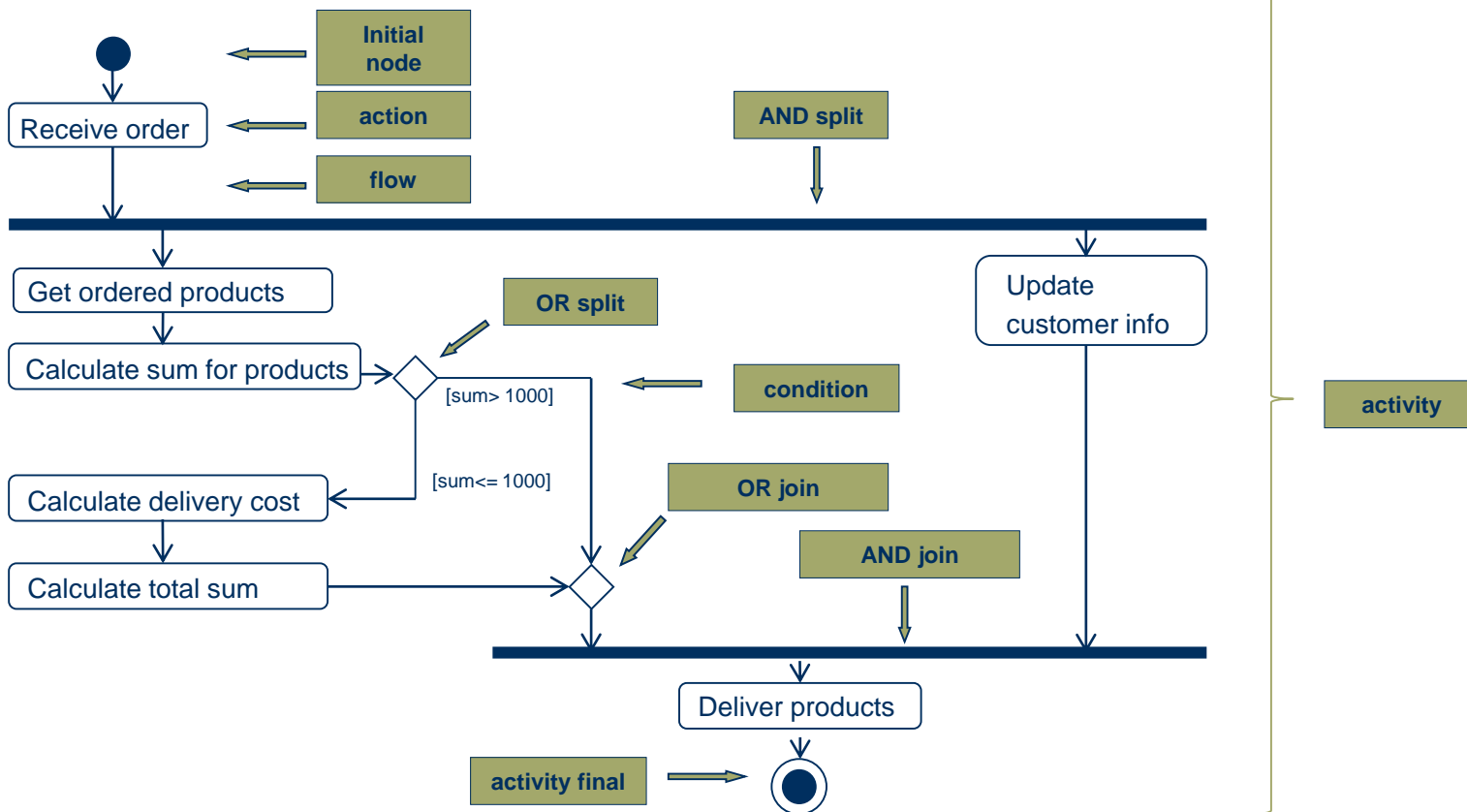
SUPCOM

More about Processes Modelling with UML Activity Diagram

Erik Perjons



Completed example

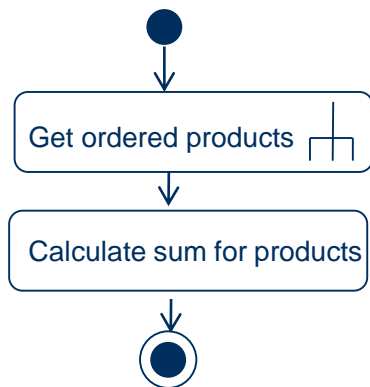


More about UML Activity Diagram



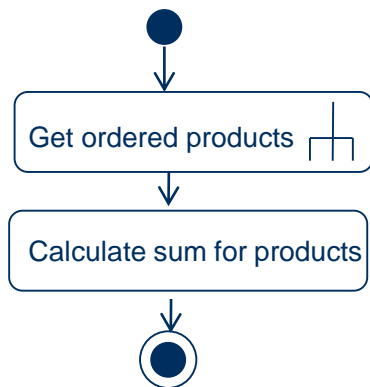
Action vs. Activity

- An **activity diagram** can include both **activities** and **actions**
- **Action** is a named element which represents a single atomic step within an activity, that is, an action cannot be further decomposed
- **Activity** represents a behavior that is composed of activities and/or actions



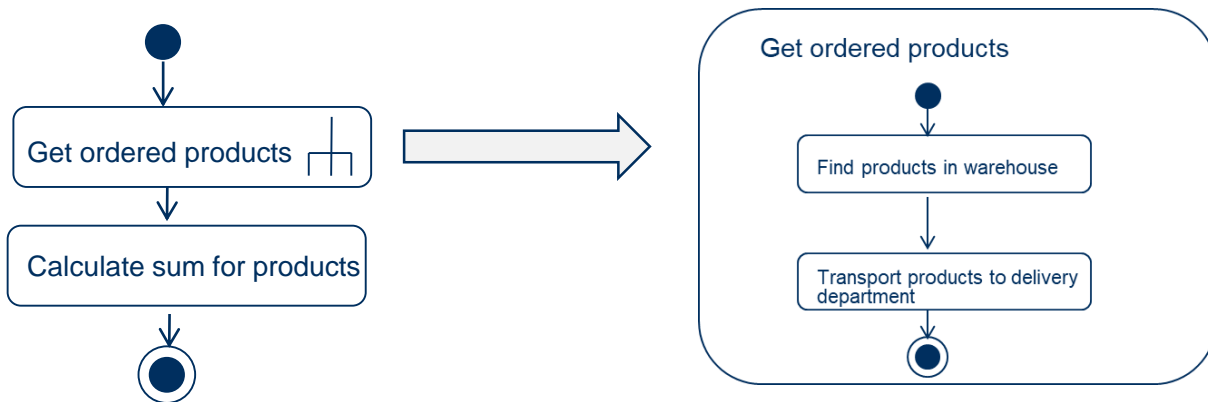
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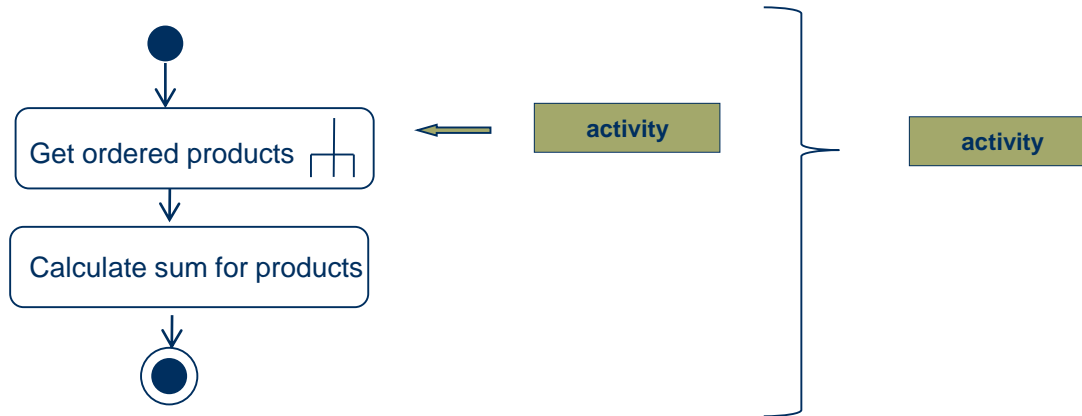
Action vs. Activity

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- **Action** is a named element which represents a single atomic step within activity, that is, an action cannot be further decomposed
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Action vs. Activity

- **Activity** represents a behavior that is composed of individual elements that are actions and/or activities



Token

- The modelling element "**token**" is shorthand for **control and data values** that **flow through an activity**
- **A token could represent many things:** an specific order, a case, a patient which can flow through an activity

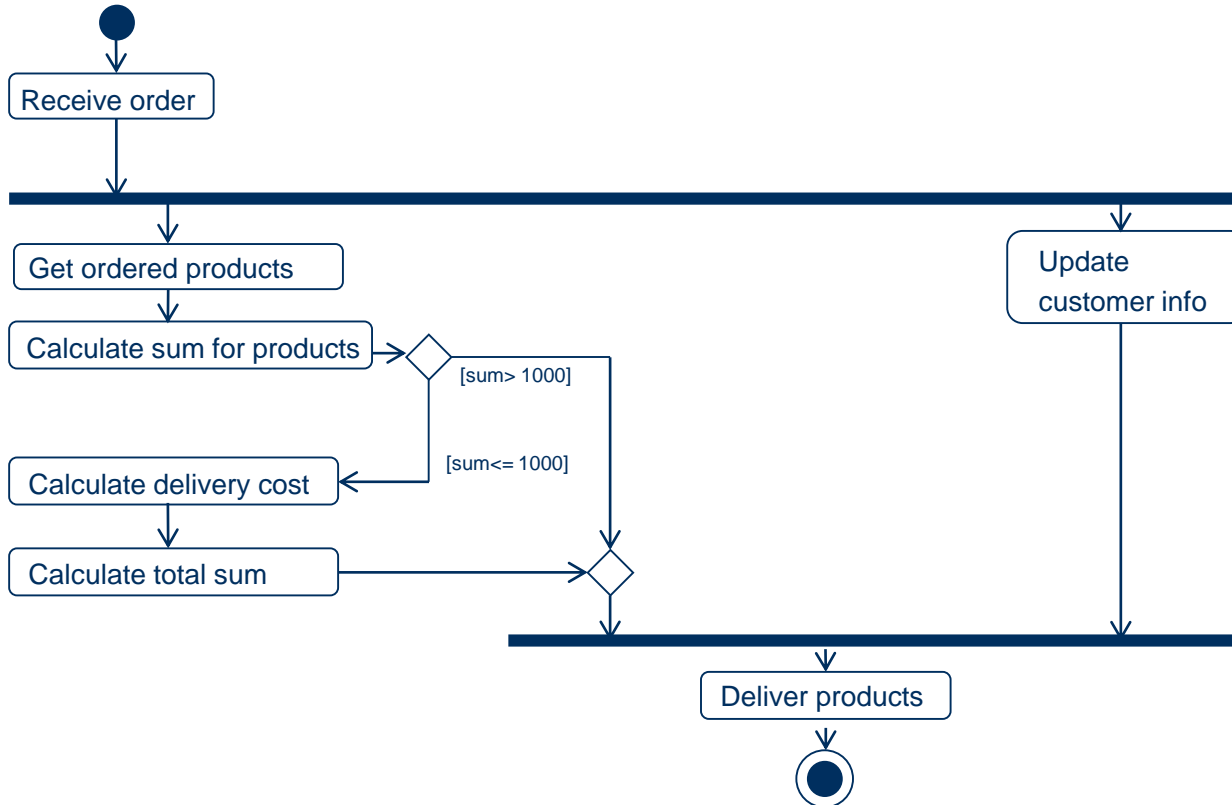


Token

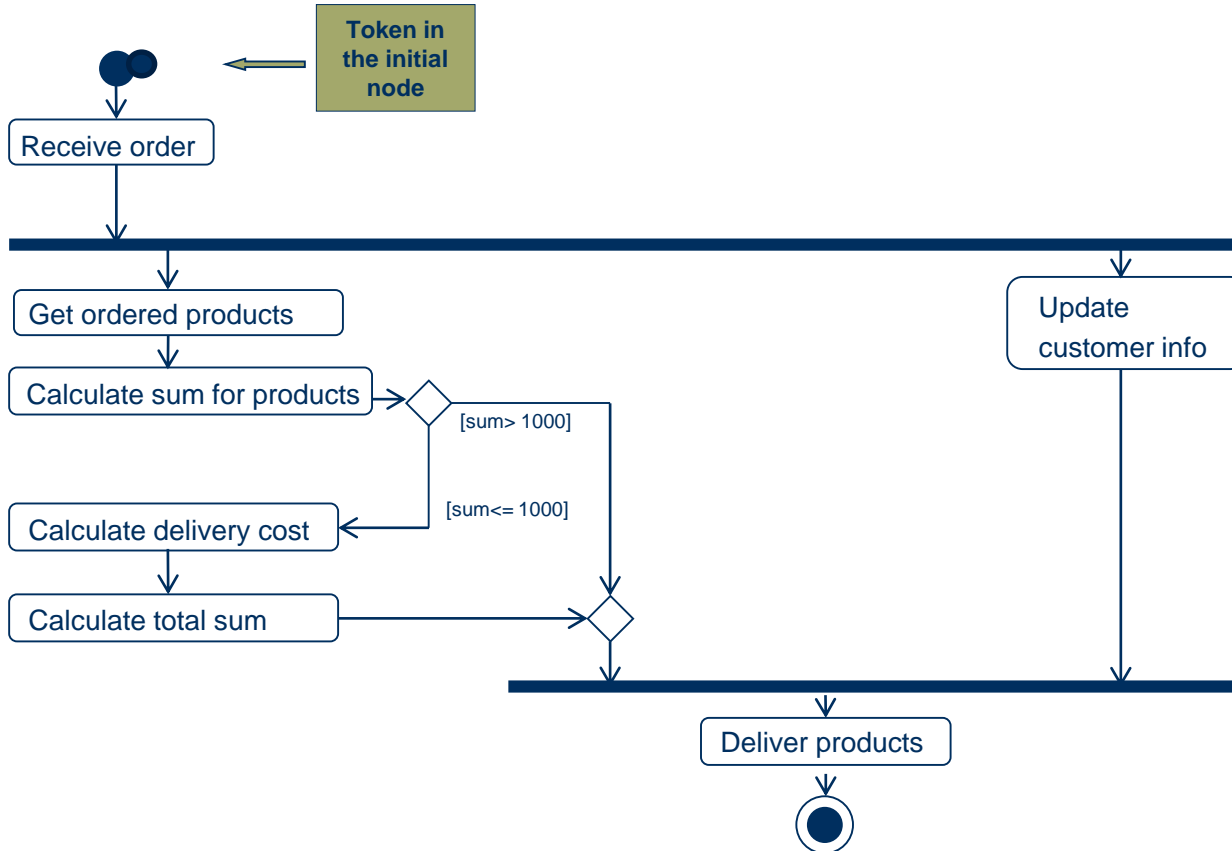
- **Token is consumed and produced in each actions/activity** in the diagrams.
- **Guideline:** Use tokens to see if the activity diagram is modelled correctly



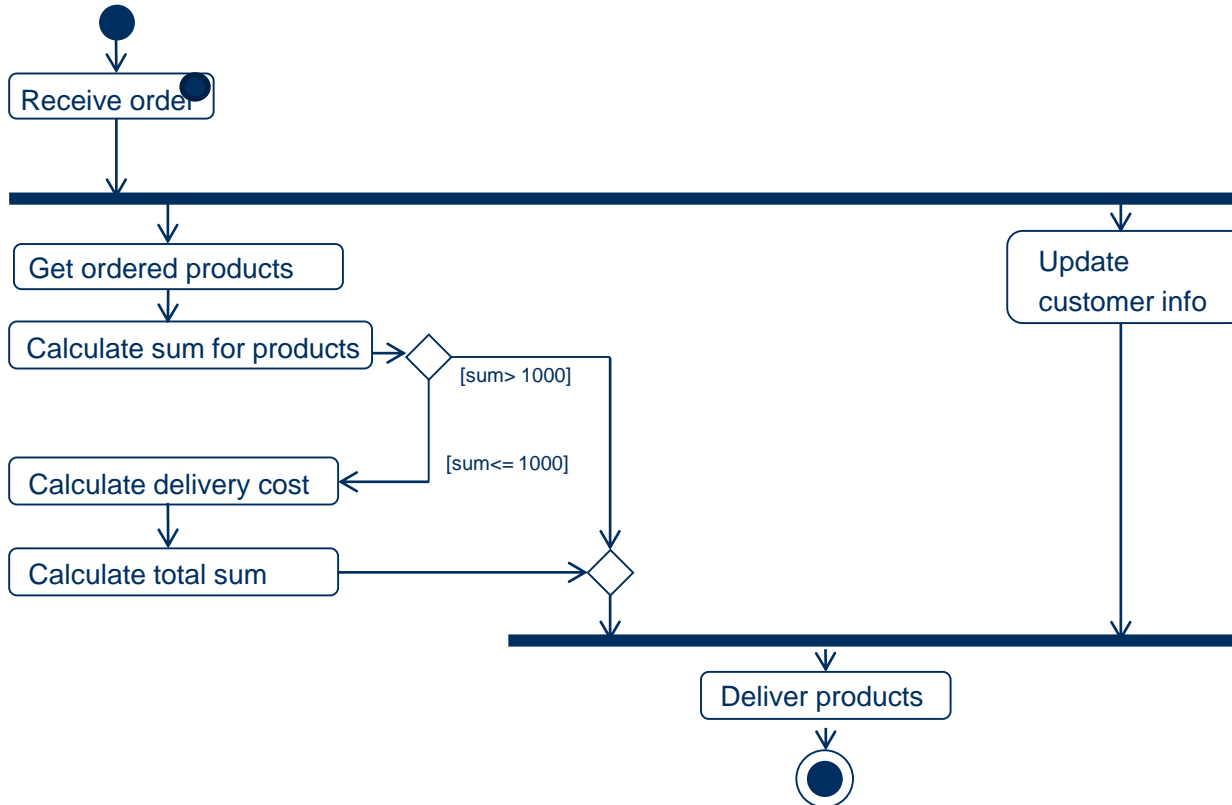
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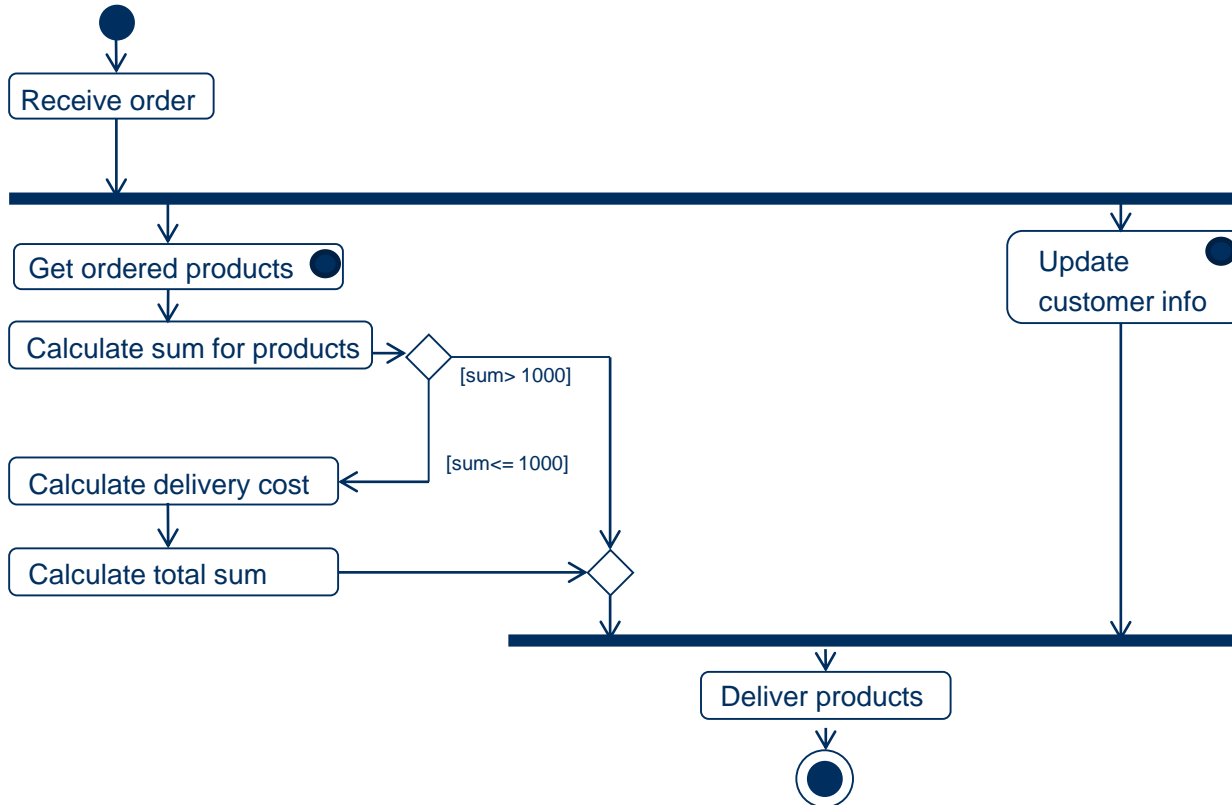
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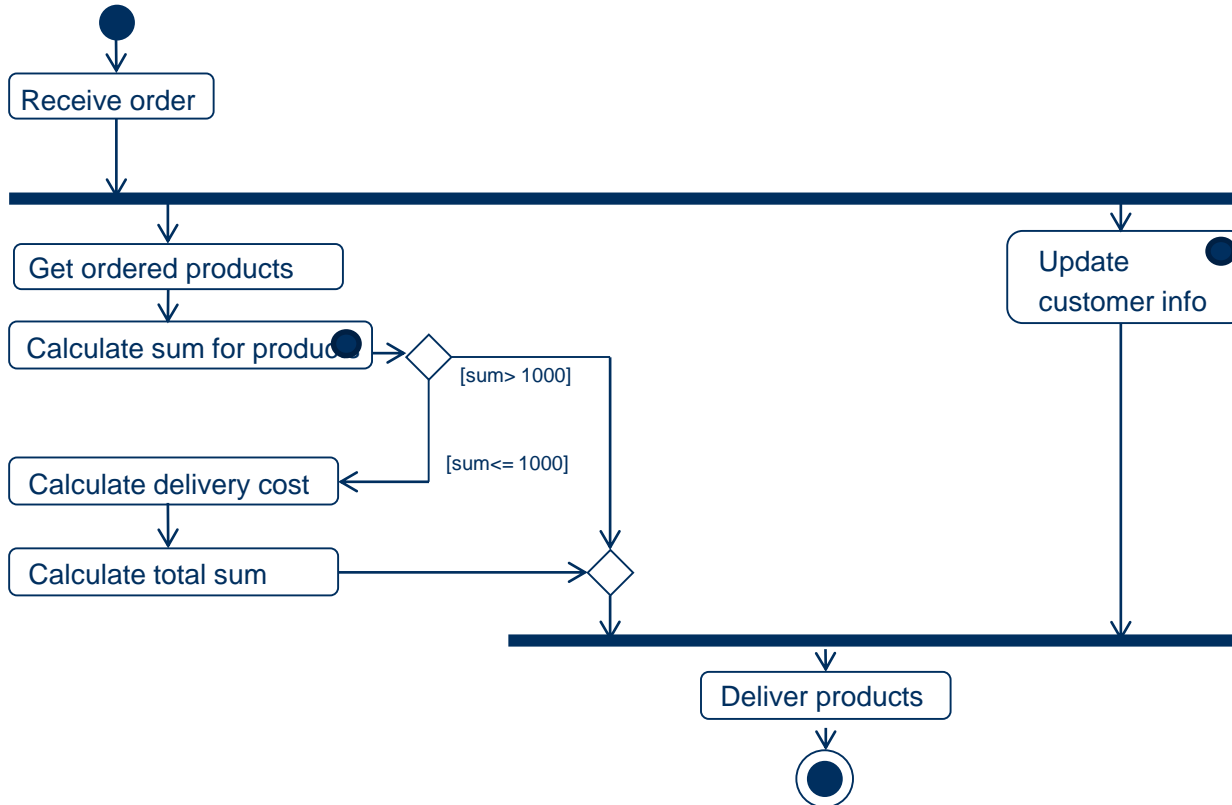
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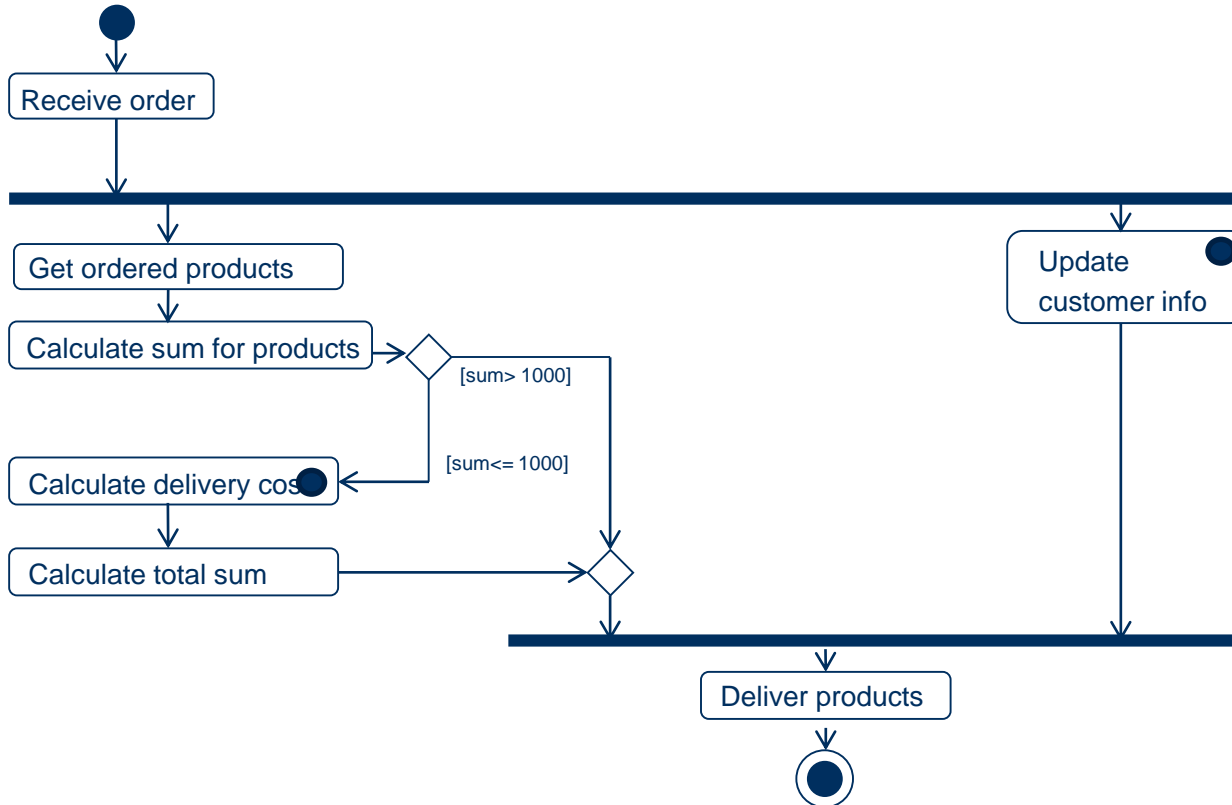
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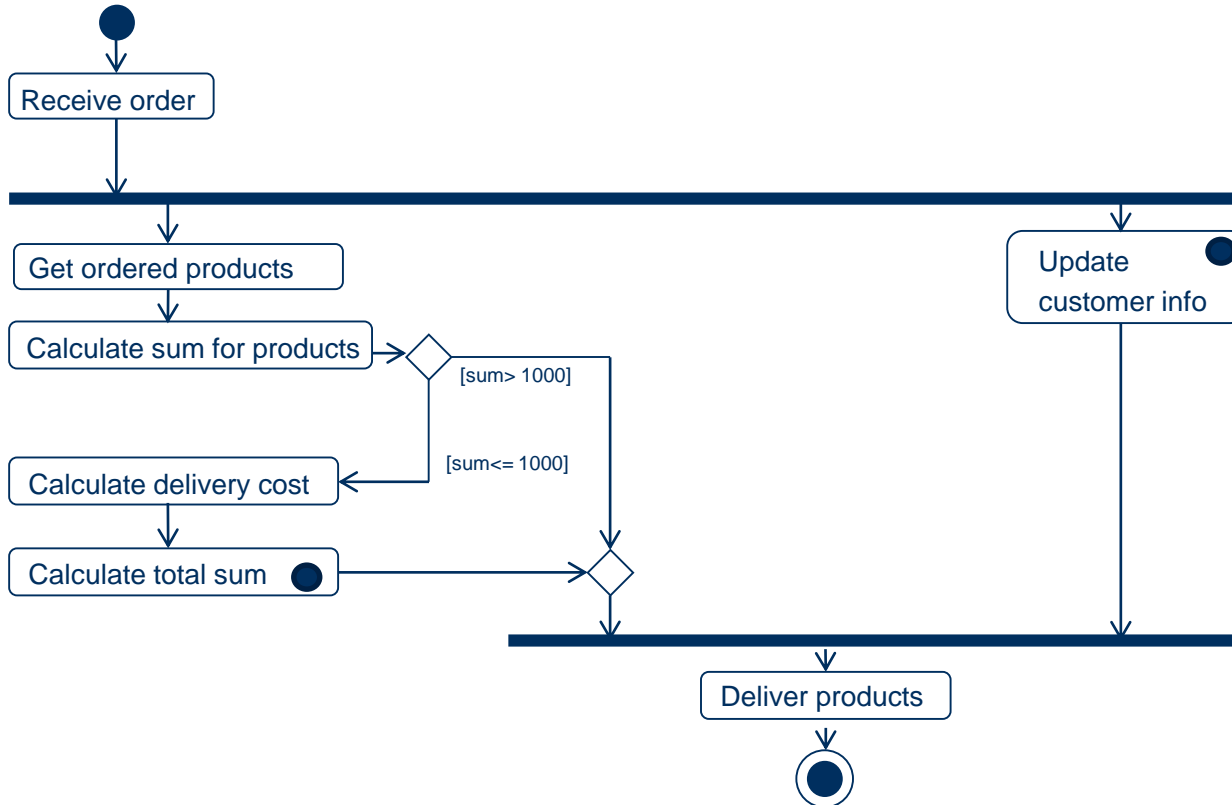
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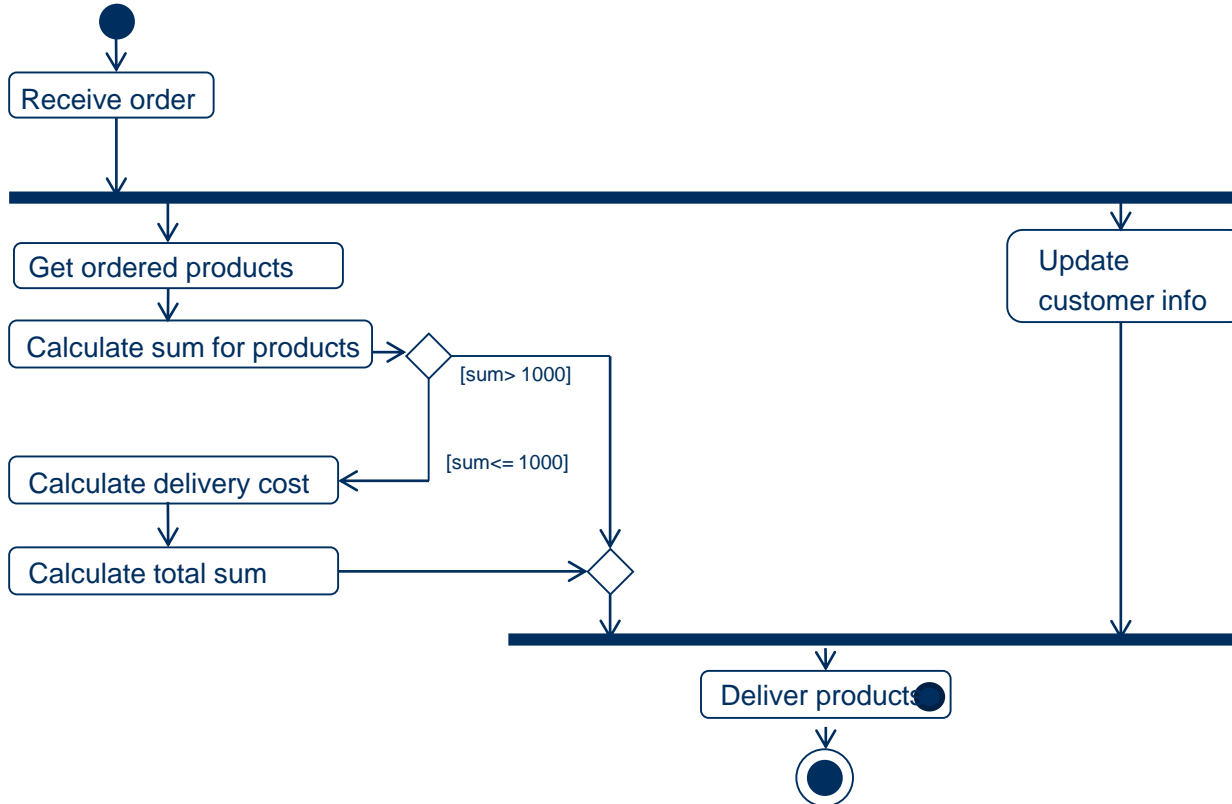
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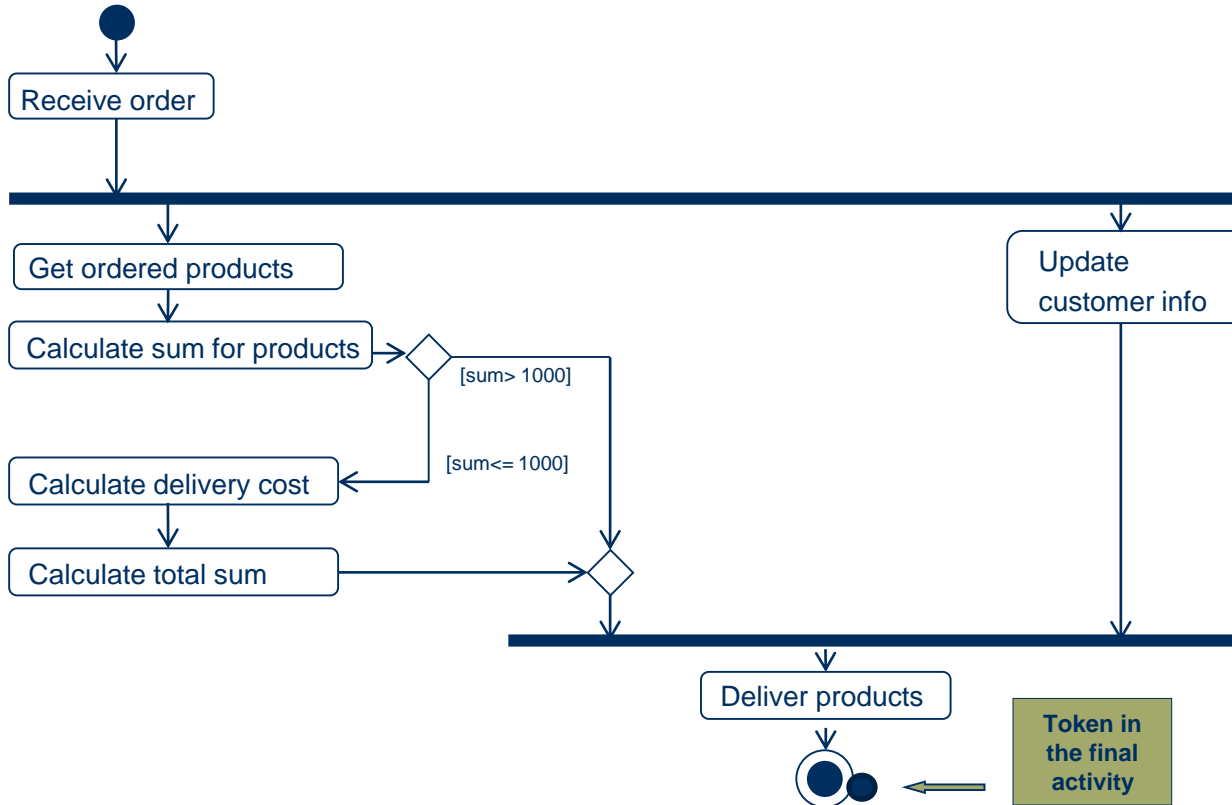
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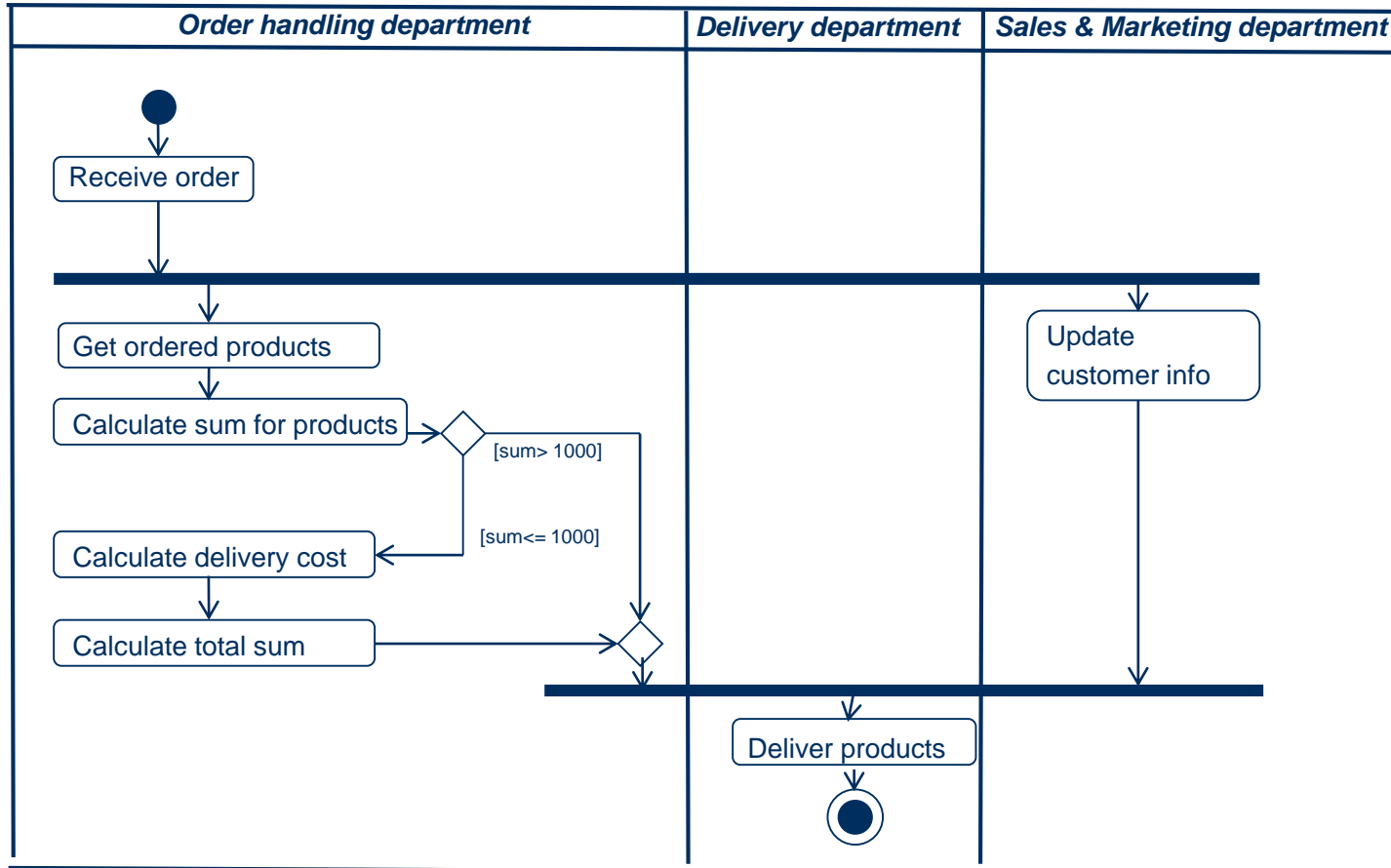
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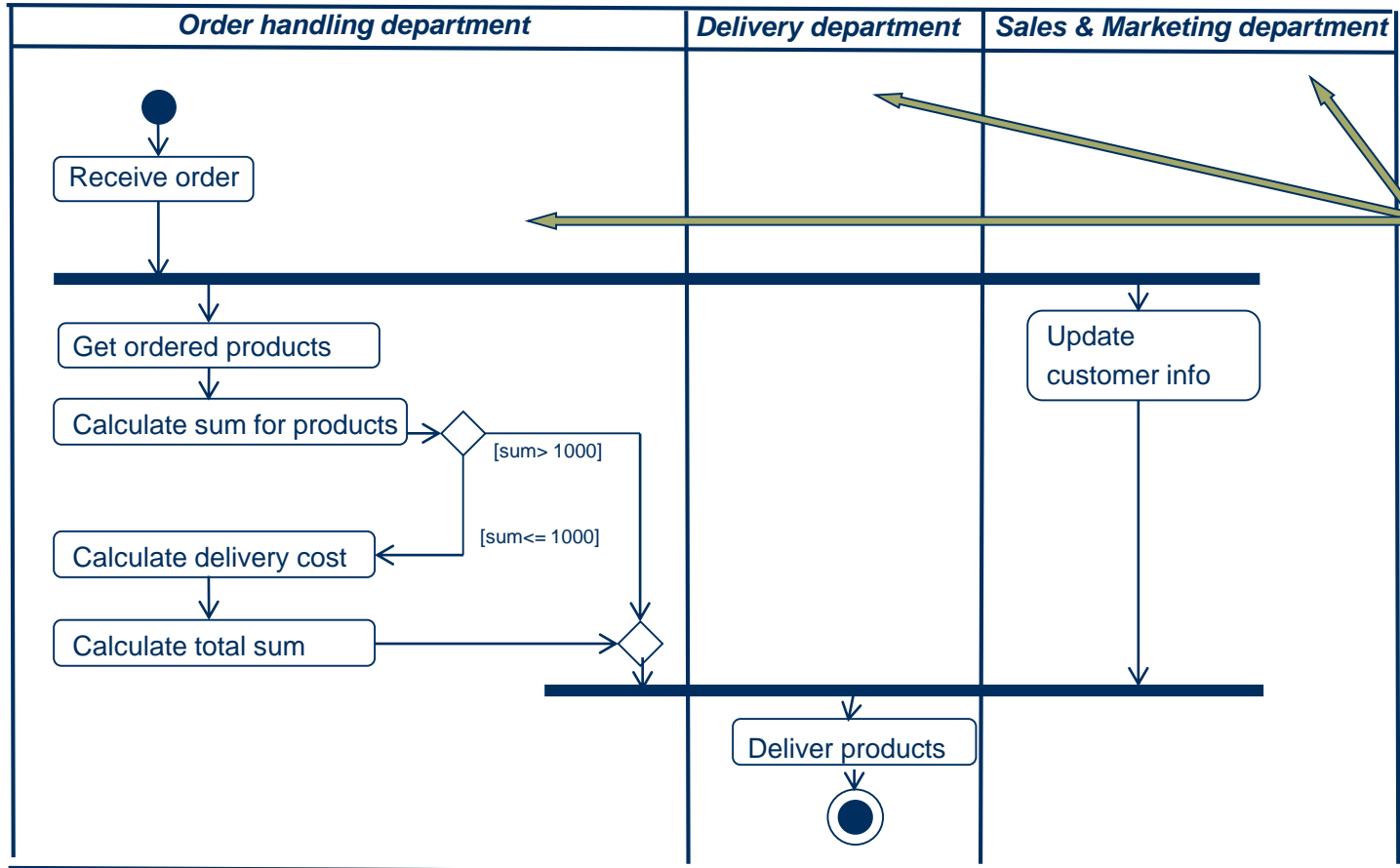
Token



Swimlanes/Lanes/Partitions



Swimlanes/Lanes/Partitions

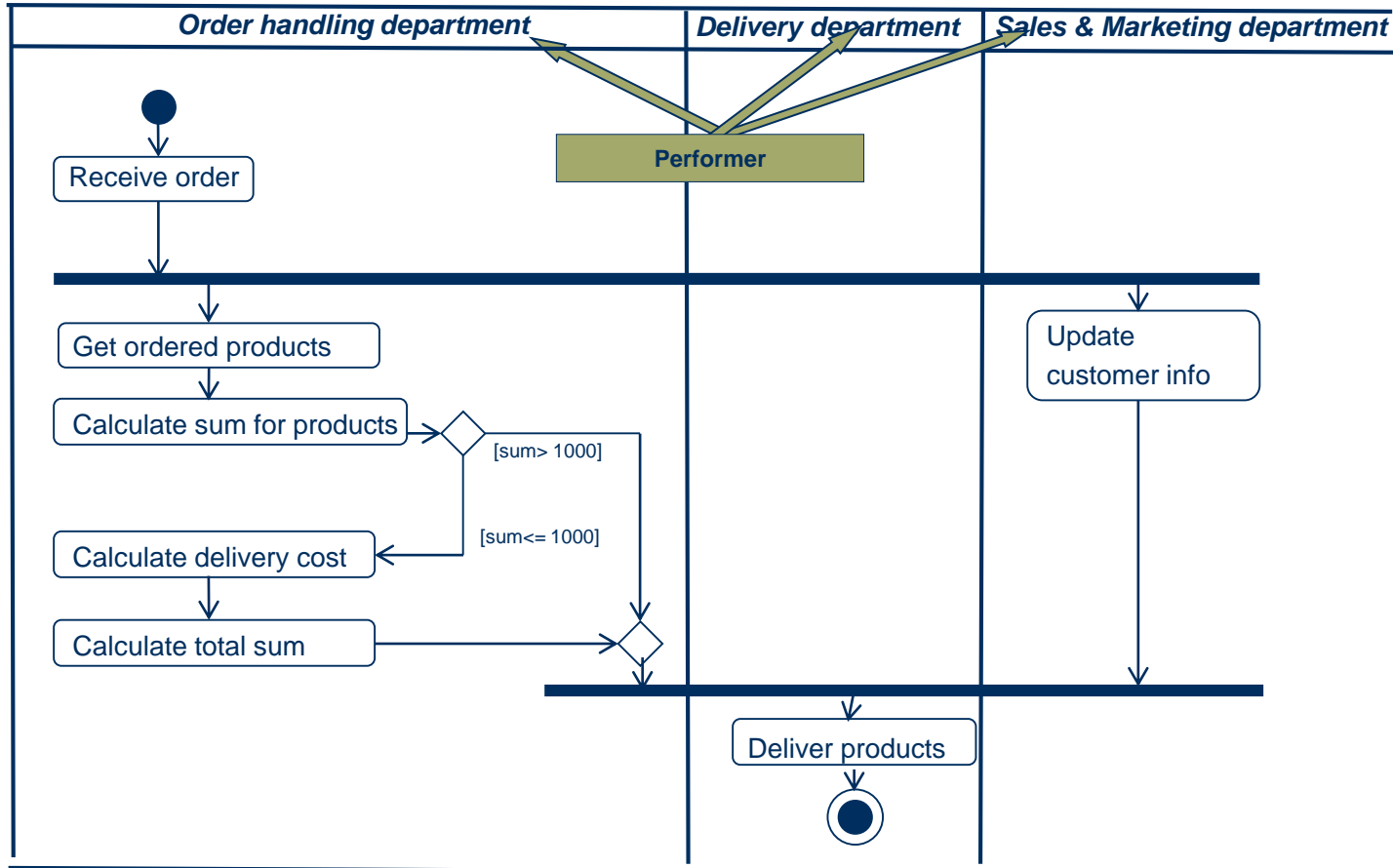


Swimlanes/
Lanes/
Partitions

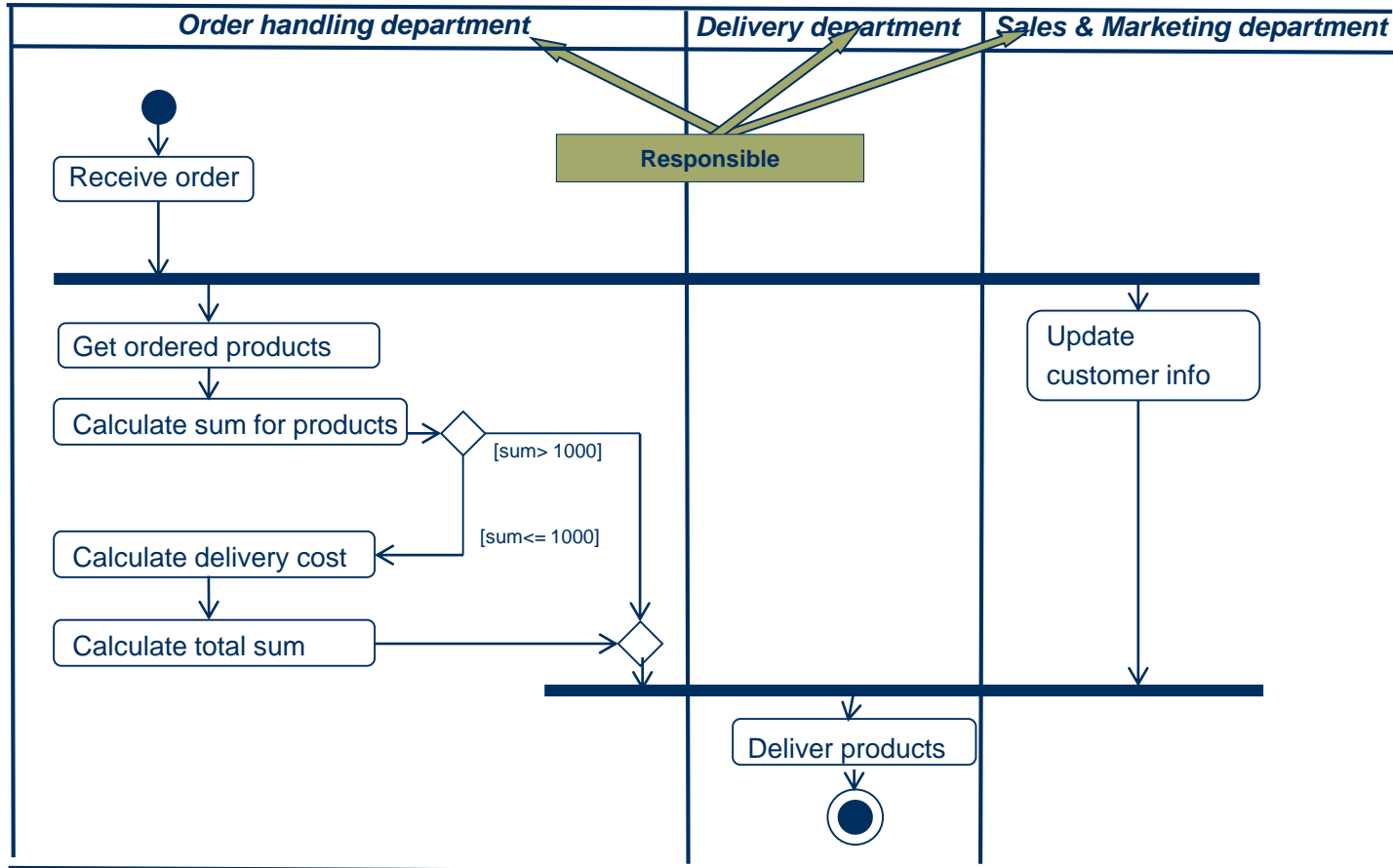
Pool

Note, the terms Swimlane, Lane and Pool are not used in UML Activity Diagram but in other modelling languages. UML use the term Partition

Swimlanes/Lanes Partitions



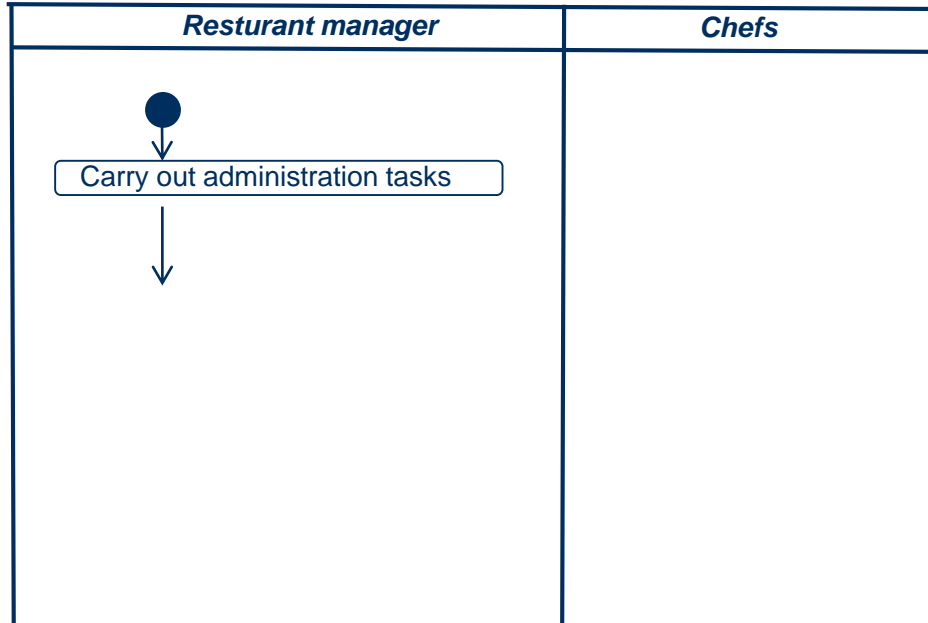
Swimlanes/Lanes Partitions



Problematic modelling situations



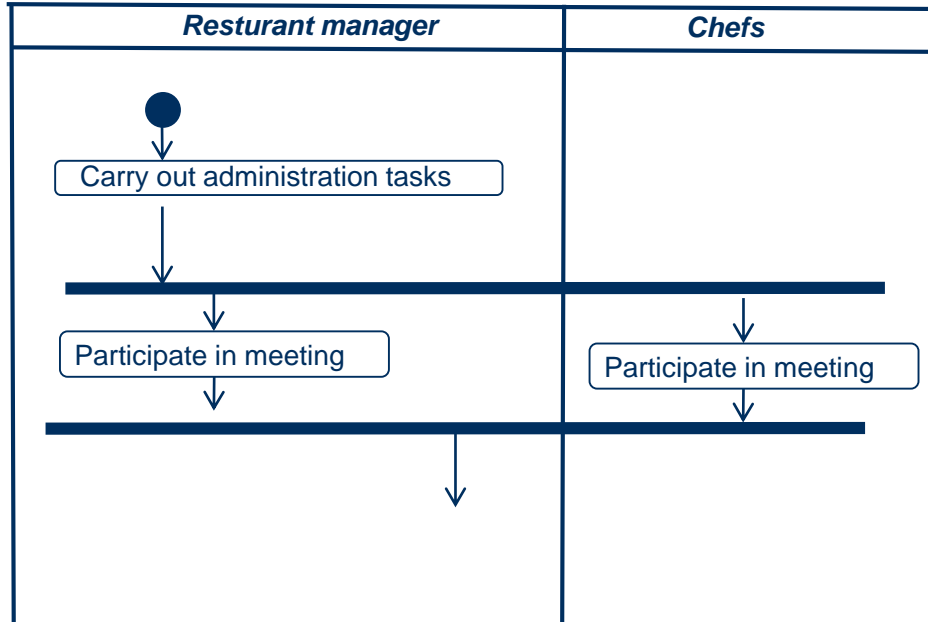
Problematic modelling situation



How to model a situation where the restuarant manager and chefs have a meeting together?



Problematic modelling situation

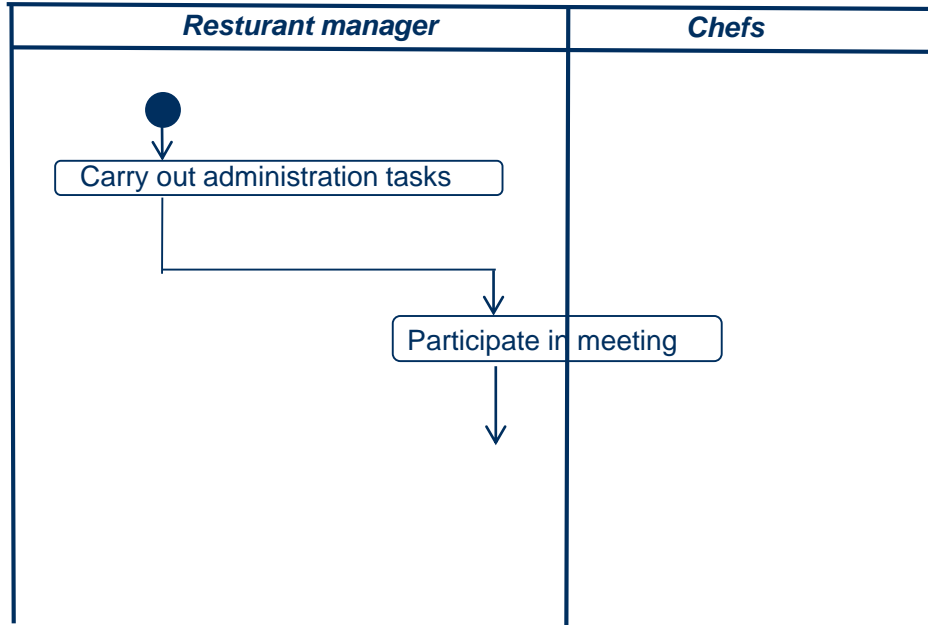


Alternative 1

How to model a situation where the restuarant manager and chefs have a meeting together?



Problematic modelling situation



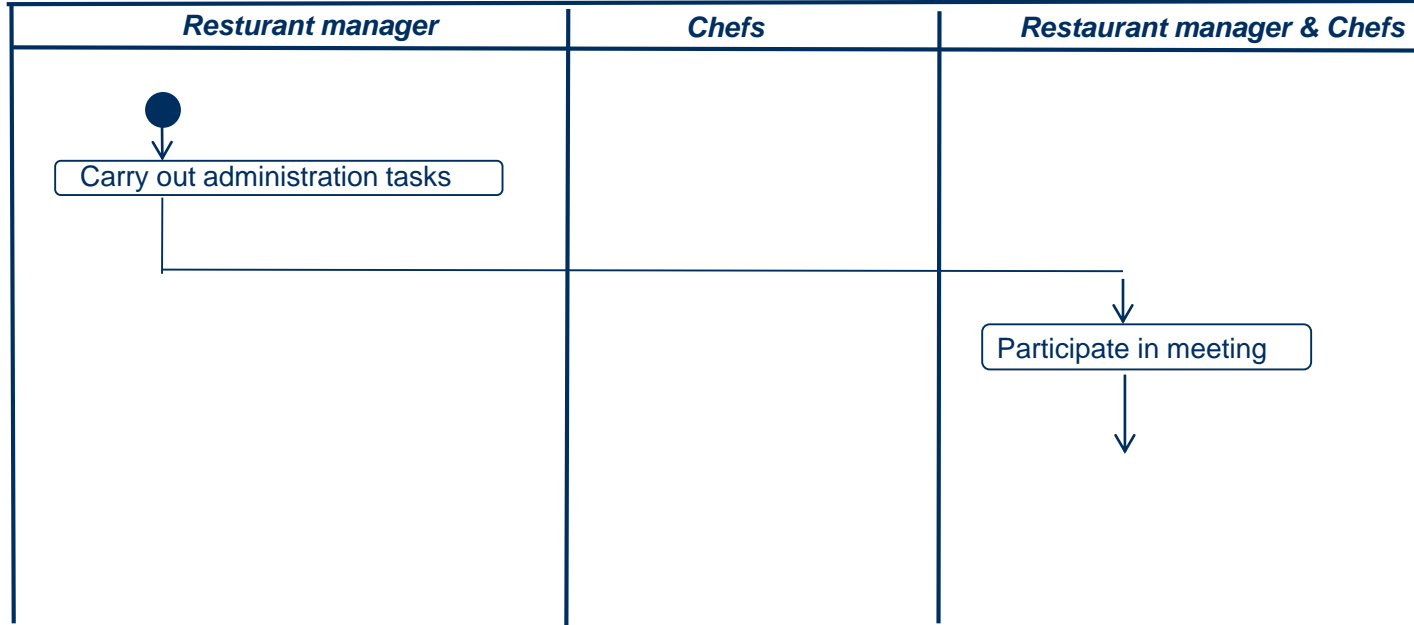
Alternative 2

How to model a situation where the restuarant manager and chefs have a meeting together?



Problematic modelling situation

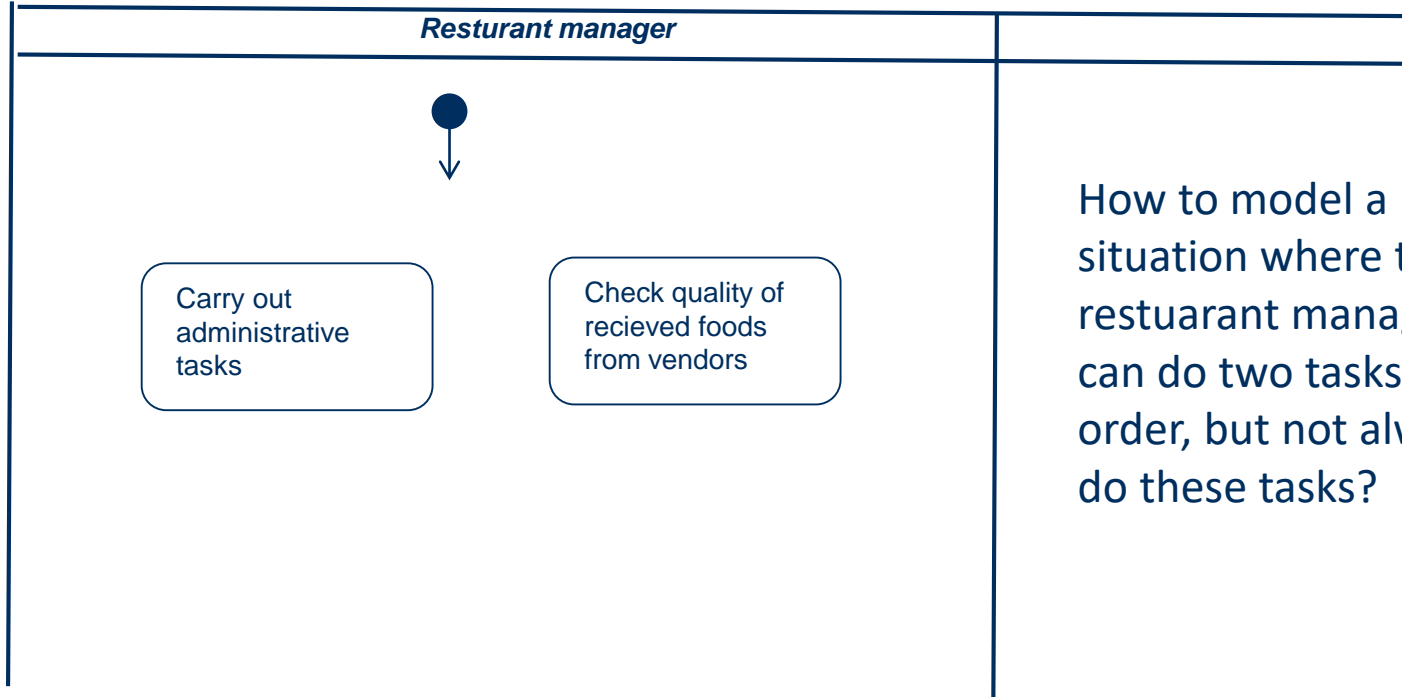
Alternative 3



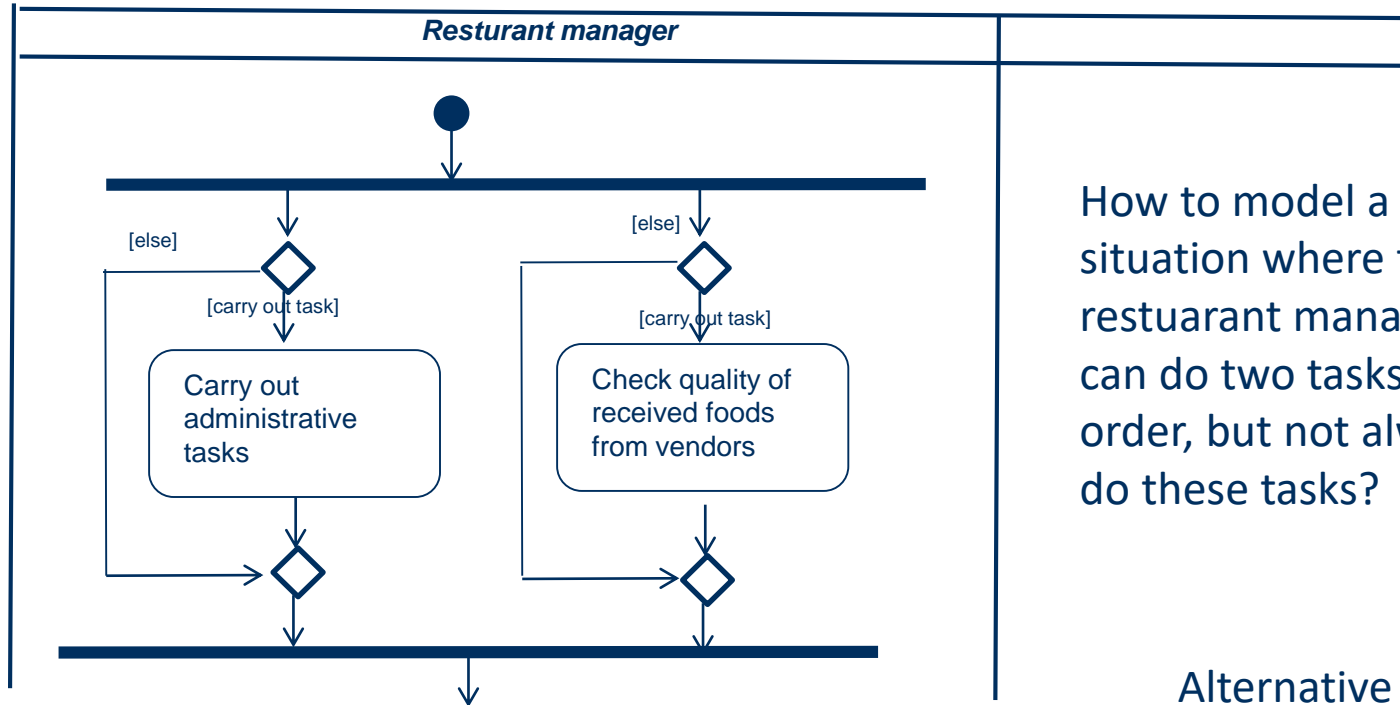
How to model a situation where the restuarant manager and chefs have a meeting together?



Problematic modelling situation



Problematic modelling situation

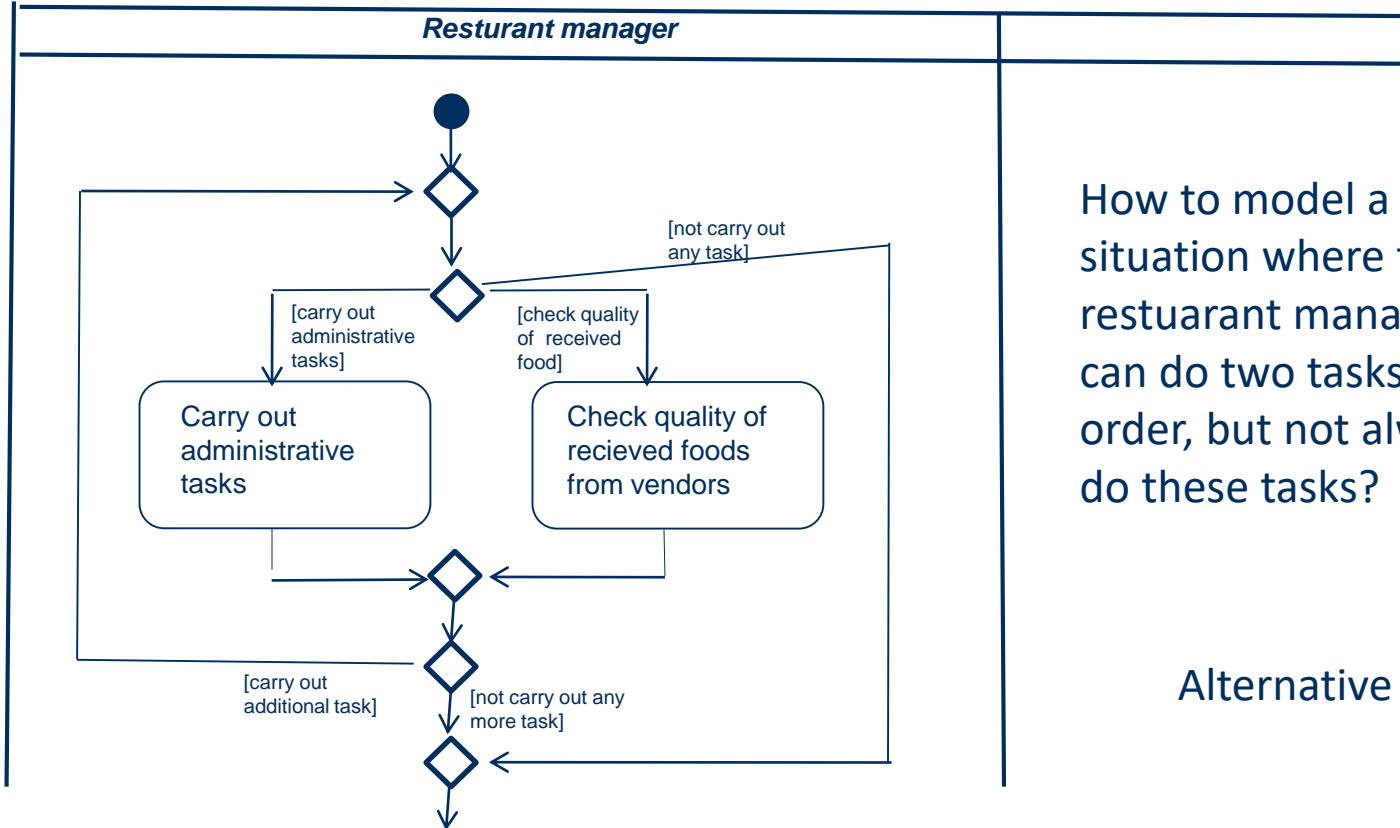


How to model a situation where the restuarant manager can do two tasks in any order, but not always do these tasks?

Alternative 1



Problematic modelling situation



How to model a situation where the restuarant manager can do two tasks in any order, but not always do these tasks?

Alternative 2

