Visual Paradigm
How to Use Duration Constraint in Sequence Diagram?
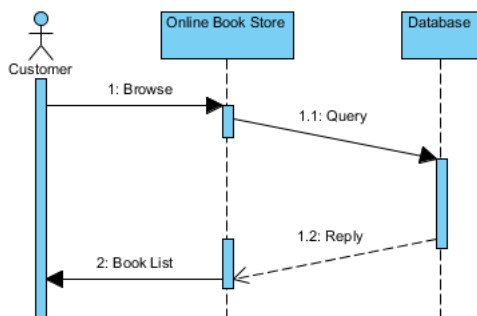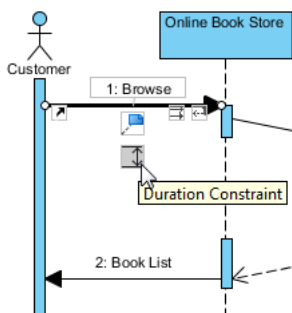
Tutorial

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Written Date : August 16, 2010

In a UML sequence diagram, a duration message is used to indicate the passage of time of message. It's especially useful when you want to model a real-time system. With Visual Paradigm, you can add duration constraint to messages in one click. This tutorial will demonstrate this how to define duration constraint in sequence diagram.
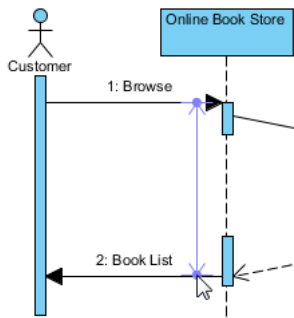
1. Download Online Book Store.vpp. You can also find this file at the bottom of this tutorial.

2. Open the downloaded .vpp file in Visual Paradigm. To open a project, select **Project > Open** from the application toolbar.

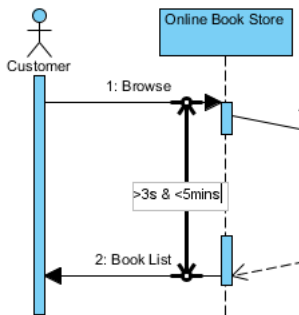3. Let's take the following UML sequence diagram as an example:

4. Assume you need to specify the time limit between *Browse* message and *Book List* message, you therefore, have to add duration constraint between them. Move the mouse over *Browse* message and press **Duration Constraint** button.

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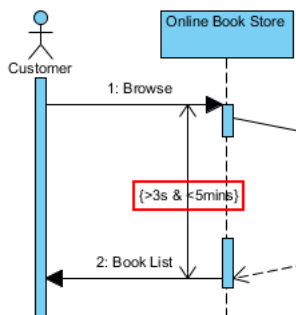
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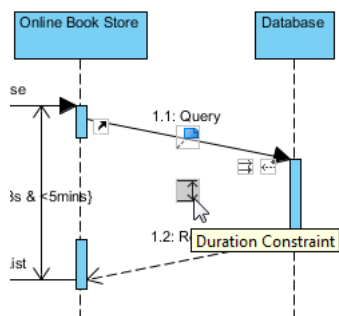5. Drag it from *Browse* message to *Book List* message and then release the mouse.

6. Enter the constraint detail inside the caption. For example, it should take more than 3 seconds but less than 5 minutes. You can enter > 3s & < 5mins.
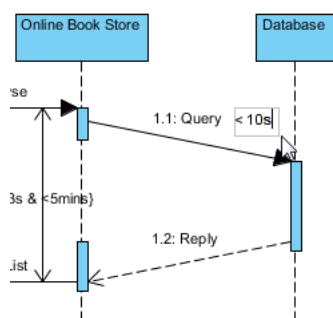
7. The duration constraint between *Browse* message and *Book List* message is shown below:

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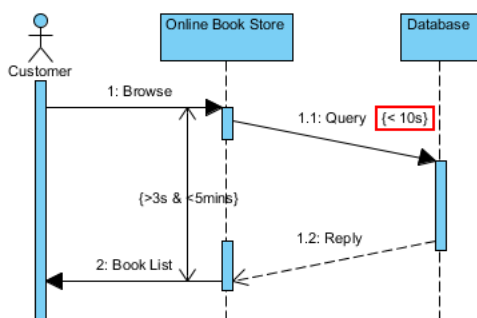How to Use Duration Constraint in Sequence Diagram?

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8.   On the other hand, you can add duration constraint not only between two message, but also on the message itself. Let's try to add duration constraint on *Query* message. Move the mouse over *Query* message and click **Duration Constraint** button.

9.   Assume it should take less than 10 seconds. Enter < 10s inside the caption.

10.   The duration constraint for *Query* message is shown below:

Resources
1.   Online Book Store.vpp

Related Links

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- [Full set of UML tools and UML diagrams](#)

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