Visual Paradigm
How to Generate Sequence Diagram from User Story?

Tutorial

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In the world of agile, a user story can be used to record a user's problem or concern to be addressed by the system to be developed. During the discussion of user story, project team can write down the suggested usage of the system in the form of scenarios. Each scenario is a set of steps a user will take to achieve what they want, under that user story. With user story scenario, user can read and confirm if the system flow is what they preferred before the commencement of feature development.

In order for stakeholders and project team to read the steps easier, you can optionally generate a UML sequence diagram from the scenario, to visualize the steps in sequence diagram. In this tutorial, we will try to write a simple user story and then generate a sequence diagram from it.
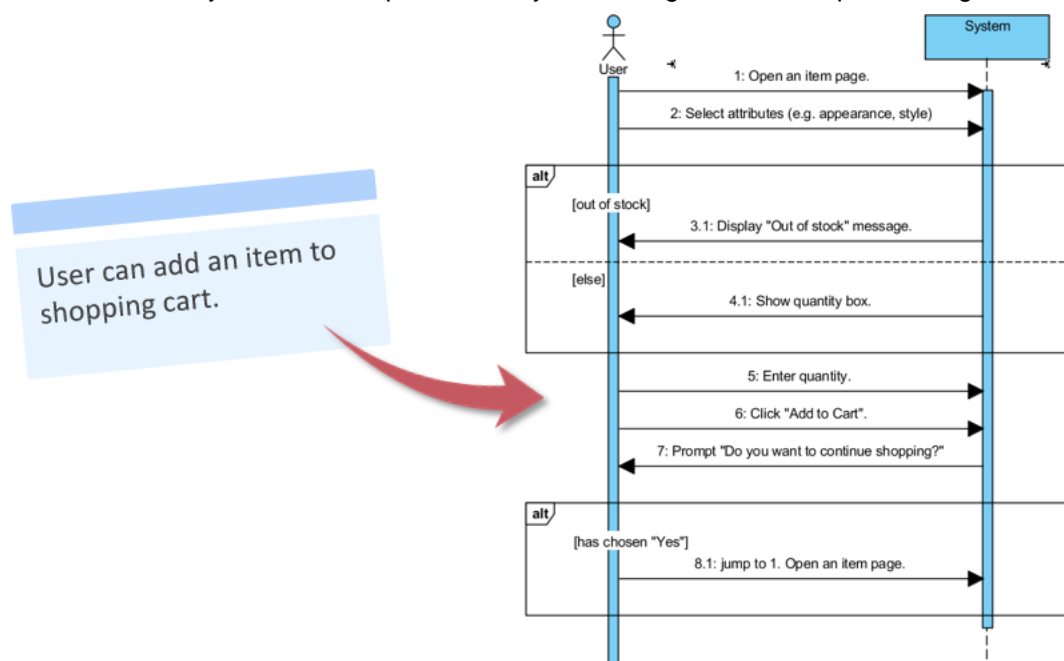

Writing user story scenario

1. Create a new project with Visual Paradigm. Select **Project > New** from the application toolbar.

Visual Paradigm
How to Generate Sequence Diagram from User Story?

Tutorial

2. In the **New Project** window, enter *Online Shopping* as project name. Click the **Create Blank Project** button.
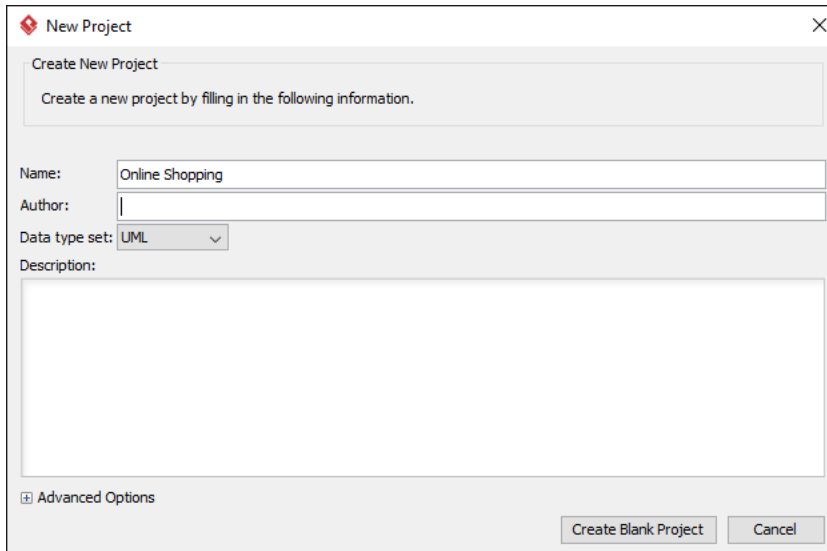

3. Open the **User Story** page in UeXceler. If you are not currently opening UeXceler, select **UeXceler > UeXceler** from the application toolbar first, and then open the **User Story** page.
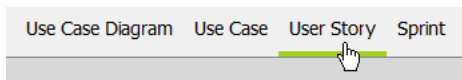
4. Create a general user story. Click on **Add a feature that can...** and enter *User can add an item to shopping cart.* as name.
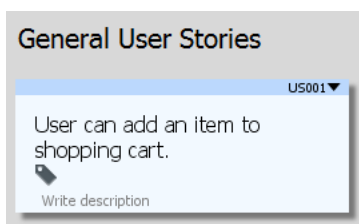
5. Double click on the user story to open it.

6. Open the **Scenario** page.

Visual Paradigm
How to Generate Sequence Diagram from User Story?

Tutorial
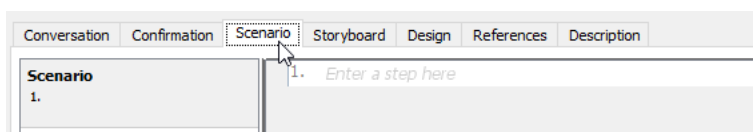
7.   Enter the steps to accomplish this user story. Click on the first step and enter *Open an item page*.

8.   Press **Enter** and enter step 2: *Select attributes (e.g. appearance, style)*.

9.   A quantity box will be displayed when the item user selected is still available for purchasing. Let's write an if-then-else for this. Press **Enter** to go to the third step. Then, press **Ctrl-Space** to toggle the **Statement Control** list.

10.   Select **If** from the **Statement Control** list.

11.   Enter *out of stock*.

Visual Paradigm
How to Generate Sequence Diagram from User Story?

Tutorial

12. Let's say the system will display an "out of stock" message in this situation. Press **Enter** to go into the if condition. Then, press **Ctrl-Space** again.

13. This step is performed by the system. Let's create a System Response. Select **System Response** from the **Statement Control** list.

```
1.   Open an item page.
2.   Select attributes (e.g. appearance, style)
3.   if   out of stock
     3.1.  |
     end if         Statement Control
                System Response
                If
                Change to Else if
                Change to Else
                While
                For each
                Loop until
                Jump
                Exit
```
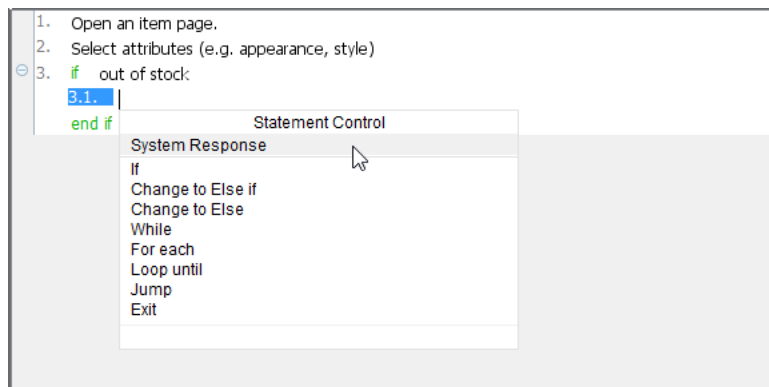
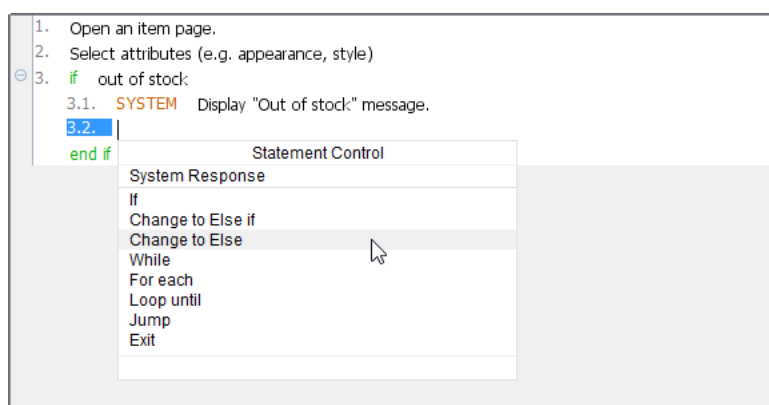14. Enter *Display "Out of stock" message.*.

```
1.   Open an item page.
2.   Select attributes (e.g. appearance, style)
3.   if   out of stock
     3.1.  SYSTEM   Display "Out of stock" message.|
     end if
```
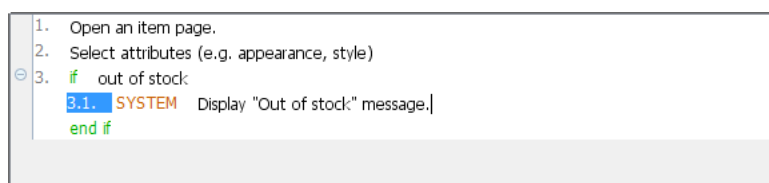
15. A quantity box will be displayed in the 'else' case. Now, press **Enter** and press **Ctrl-Space** to toggle the **Statement Control** list.

16. Select **Change to Else** from the **Statement Control** list.

```
1.   Open an item page.
2.   Select attributes (e.g. appearance, style)
3.   if   out of stock
     3.1.  SYSTEM   Display "Out of stock" message.
     3.2.  |
     end if         Statement Control
                System Response
                If
                Change to Else if
                Change to Else
                While
                For each
                Loop until
                Jump
                Exit
```

17. Press **Enter**.

Visual Paradigm
How to Generate Sequence Diagram from User Story?

Tutorial

18. Toggle the **Statement Control** list by pressing **Ctrl-Space**. Select **System Response** from the list and enter *Show quantity box.*.

19. Press **Down** to go to end if. Then, press **Enter** to go to step 5.

20. The customer will then enter the quantity of item and add the item to cart. Enter *Enter quantity.* and *Click "Add to Cart".* as step 5 and 6, respectively.

```
1.    Open an item page.
2.    Select attributes (e.g. appearance, style)
3.    if   out of stock
      3.1.   SYSTEM    Display "Out of stock" message.
4.    else
      4.1.   SYSTEM    Show quantity box.
      end if
5.    Enter quantity.
6.    Click "Add to Cart".
```

21. Once the item is added to cart, the system will prompt if the customer want to continue shopping. Press **Enter** to create a new step. Enter a system response *Prompt "Do you want to continue shopping?"* as step 7.

```
1.    Open an item page.
2.    Select attributes (e.g. appearance, style)
3.    if   out of stock
      3.1.   SYSTEM    Display "Out of stock" message.
4.    else
      4.1.   SYSTEM    Show quantity box.
      end if
5.    Enter quantity.
6.    Click "Add to Cart".
7.    SYSTEM    Prompt "Do you want to continue shopping?"
```

22. If the customer has chosen "Yes", the system will then reopen the item page. Use the **Statement Control** list to add an if - *has chosen "Yes"*.

```
1.    Open an item page.
2.    Select attributes (e.g. appearance, style)
3.    if   out of stock
      3.1.   SYSTEM    Display "Out of stock" message.
4.    else
      4.1.   SYSTEM    Show quantity box.
      end if
5.    Enter quantity.
6.    Click "Add to Cart".
7.    SYSTEM    Prompt "Do you want to continue shopping?"
8.    if   has chosen "Yes"
      end if
```

Visual Paradigm
How to Generate Sequence Diagram from User Story?

Tutorial

23. Press **Enter** to go into the if condition. Press **Ctrl-Space** to toggle the **Statement Control** list. This time, select **Jump**.
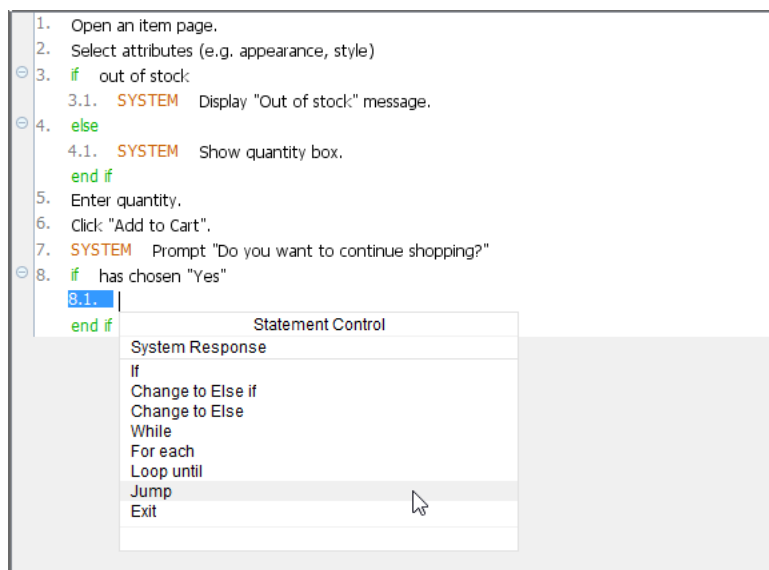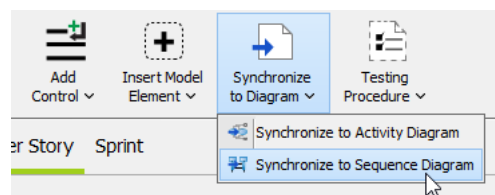
24. Click on the tiny arrow button next to step 1 to represent the jumping to step 1.
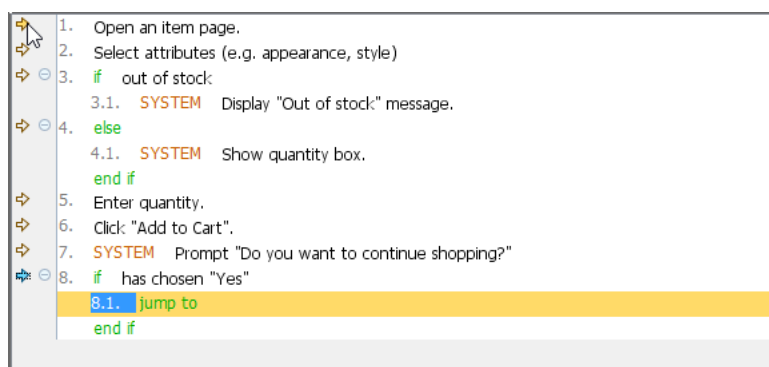
Generating sequence diagram from user story

We have just completed the scenario. Let's generate a UML sequence diagram from it. Select **Synchronize to Diagram > Synchronize to Sequence Diagram** from the toolbar.

A UML sequence diagram is generated from the scenario in a second.

Visual Paradigm
How to Generate Sequence Diagram from User Story?
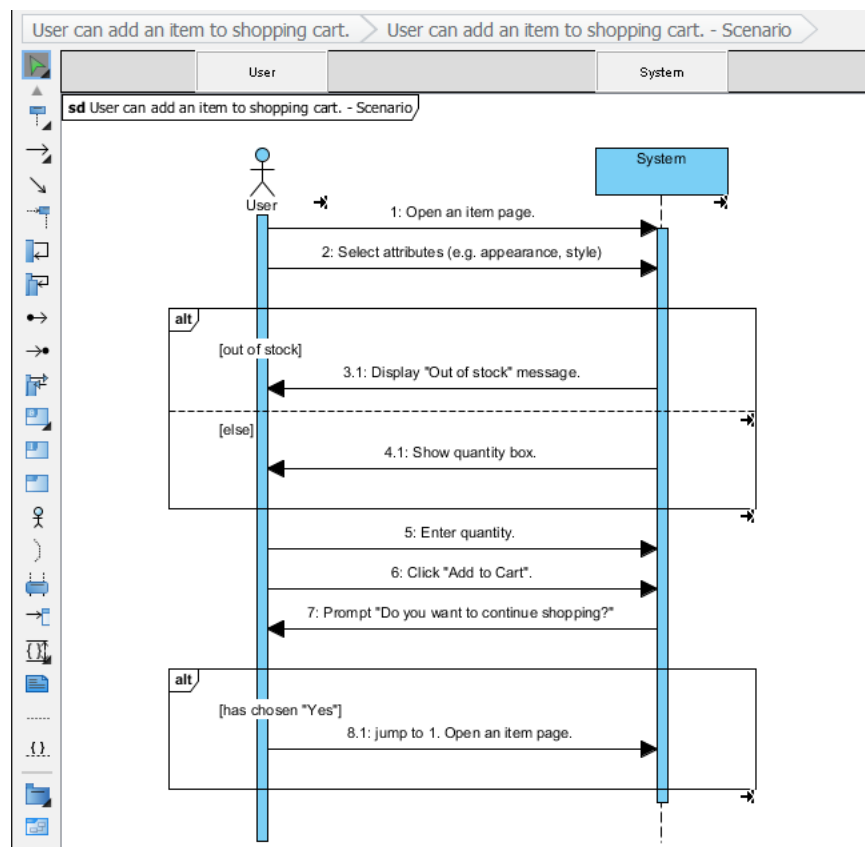
Tutorial

If necessary, press **Ctrl-Tab** to go back to the user story.

Related Links

• [Generate Activity Diagram from User Story](#)

• [Drawing sequence diagrams - Visual Paradigm User's Guide](#)

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