

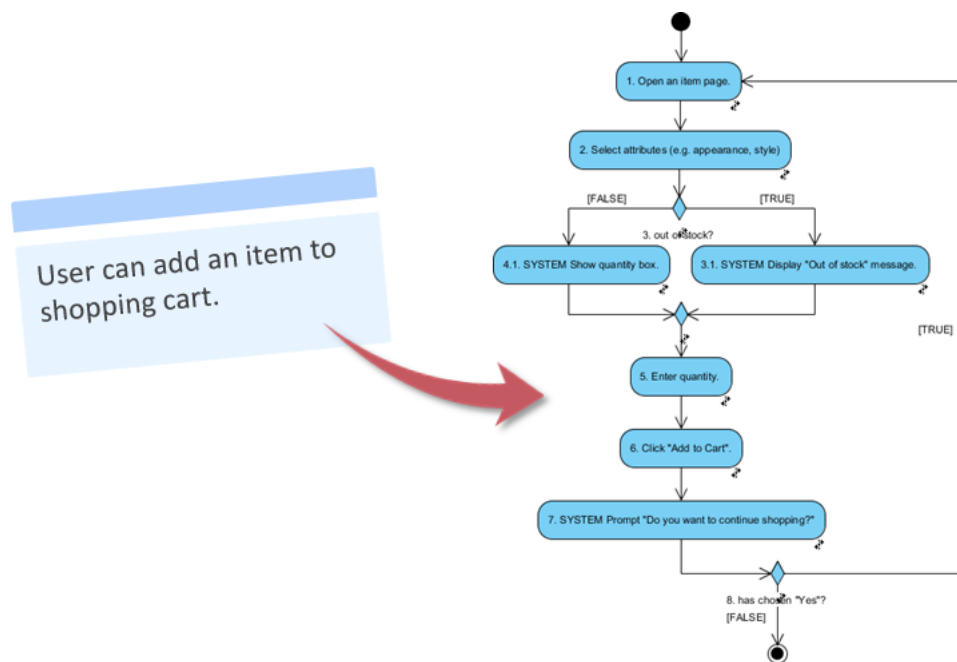


How to Generate Activity Diagram from User Story?

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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.

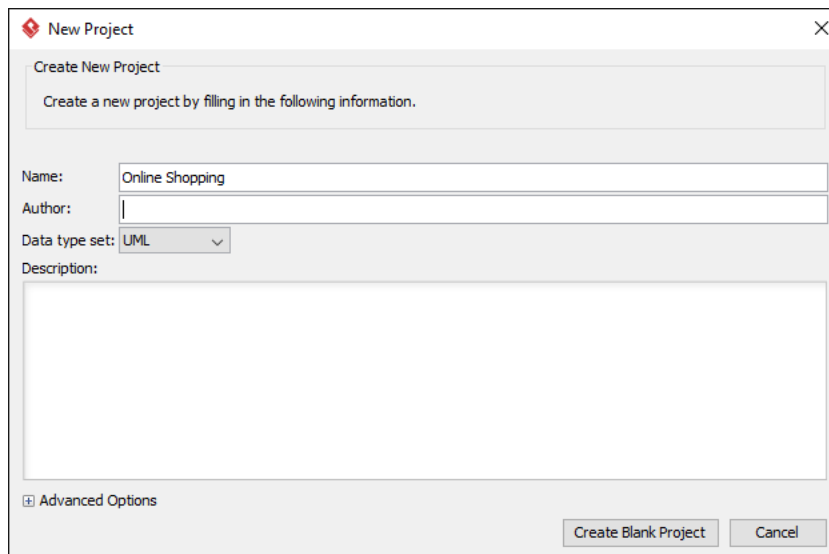
In order for stakeholders and project team to read the steps easier, you can optionally generate a [UML activity diagram](#) from the scenario, to visualize the steps in activity diagram. In this tutorial, we will try to write a simple user story and then generate an activity diagram from it.



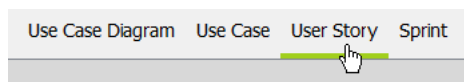
Writing user story scenario

1. Create a new project with [Visual Paradigm](#). Select **Project > New** from the application toolbar.

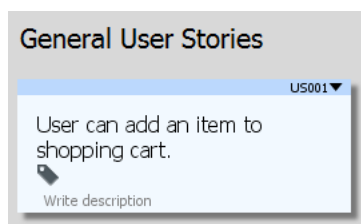
2. In the **New Project** window, enter *Online Shopping* as project name. Click the **Create Blank Project** button.



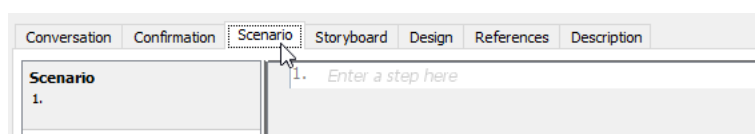
3. Open the **User Story** page in UeXceler. If you are not currently opening UeXceler, select **UeXceler > UeXceler** from the application toolbar first, and then open the **User Story** page.



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.



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

```
1. Open an item page.
```

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

```
1. Open an item page.  
2. Select attributes (e.g. appearance, style)
```

- 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.

```
1. Open an item page.  
2. Select attributes (e.g. appearance, style)  
3. |  
   | Statement Control  
   | System Response  
   | If  
   | While  
   | For each  
   | Loop until
```

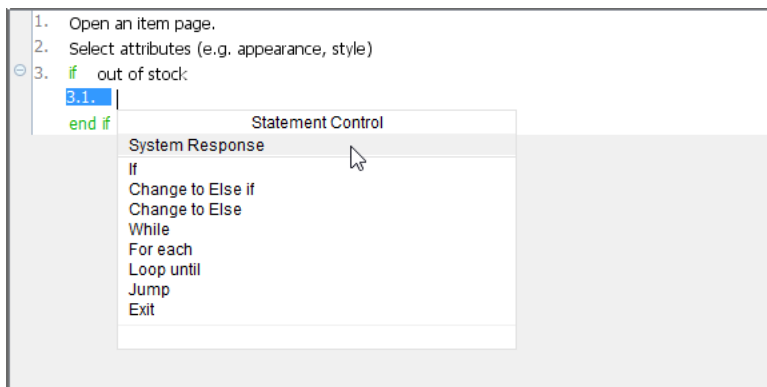
- Select **If** from the **Statement Control** list.

```
Statement Control  
System Response  
If  
While  
For each  
Loop until
```

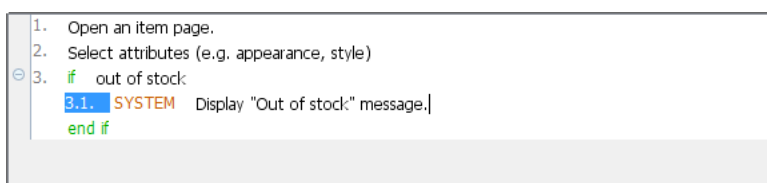
- Enter *out of stock*.

```
1. Open an item page.  
2. Select attributes (e.g. appearance, style)  
3. if out of stock  
   end if
```

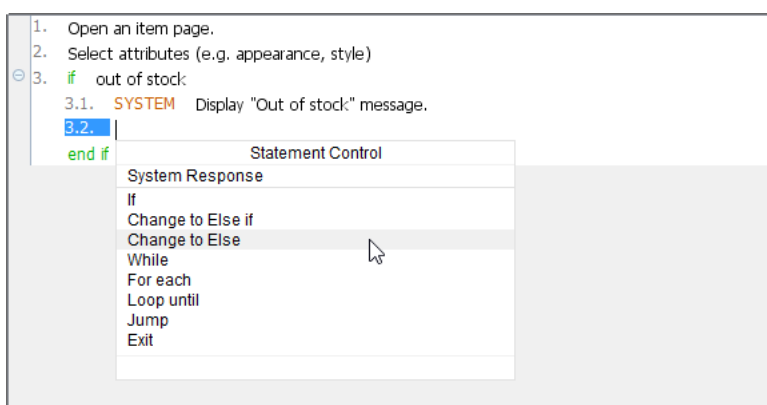
- Let's say the system will display an "out of stock" message in this situation. Press **Enter** to go into the if condition. Then, press **Ctrl-Space** again.
- This step is performed by the system. Let's create a System Response. Select **System Response** from the **Statement Control** list.



- Enter *Display "Out of stock" message..*



- A quantity box will be displayed in the 'else' case. Now, press **Enter** and press **Ctrl-Space** to toggle the **Statement Control** list.
- Select **Change to Else** from the **Statement Control** list.



- Press **Enter**.

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".]
```

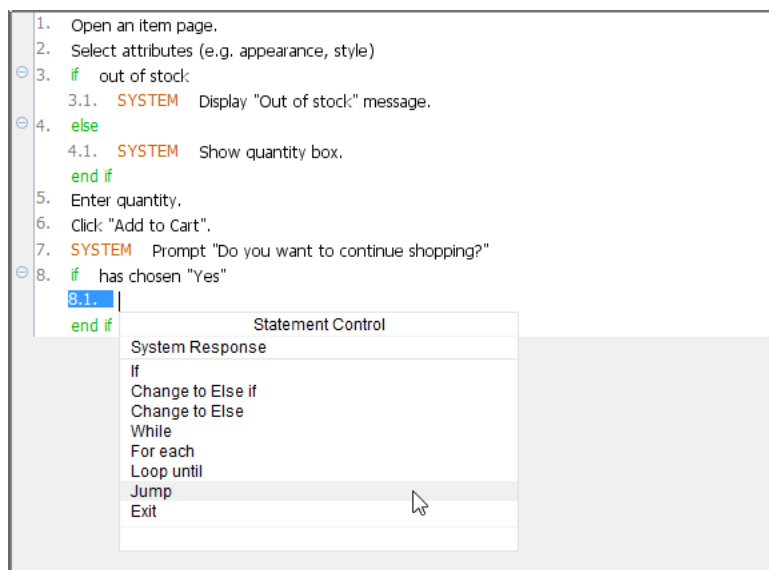
21. Once the item is added to cart, the system will prompt if the customer want to continue shopping. Press **Enter** to create a new step. Enter a system response *Prompt "Do you want to continue shopping?"* as step 7.

```
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?"]
```

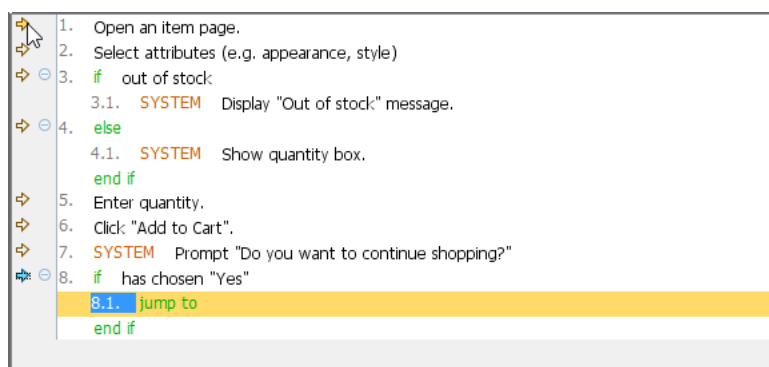
22. If the customer has chosen "Yes", the system will then reopen the item page. Use the **Statement Control** list to add an if - *has chosen "Yes"*.

```
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
```

23. Press **Enter** to go into the if condition. Press **Ctrl-Space** to toggle the **Statement Control** list. This time, select **Jump**.

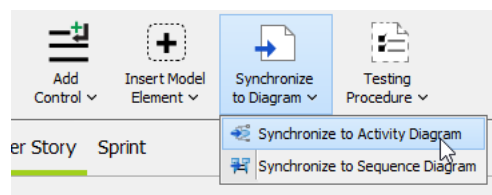


24. Click on the tiny arrow button next to step 1 to represent the jumping to step 1.

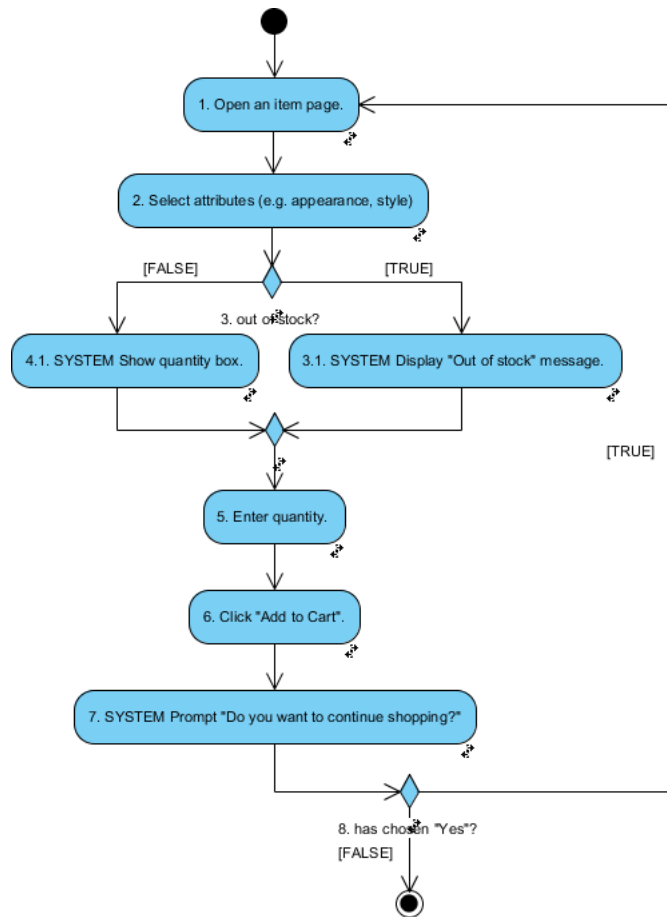


Generating activity diagram from user story

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



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



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

Related Links

- [Generate Sequence Diagram from User Story](#)
- [Drawing activity diagrams - Visual Paradigm User's Guide](#)



Visual Paradigm home page
(<https://www.visual-paradigm.com/>)

Visual Paradigm tutorials
(<https://www.visual-paradigm.com/tutorials/>)