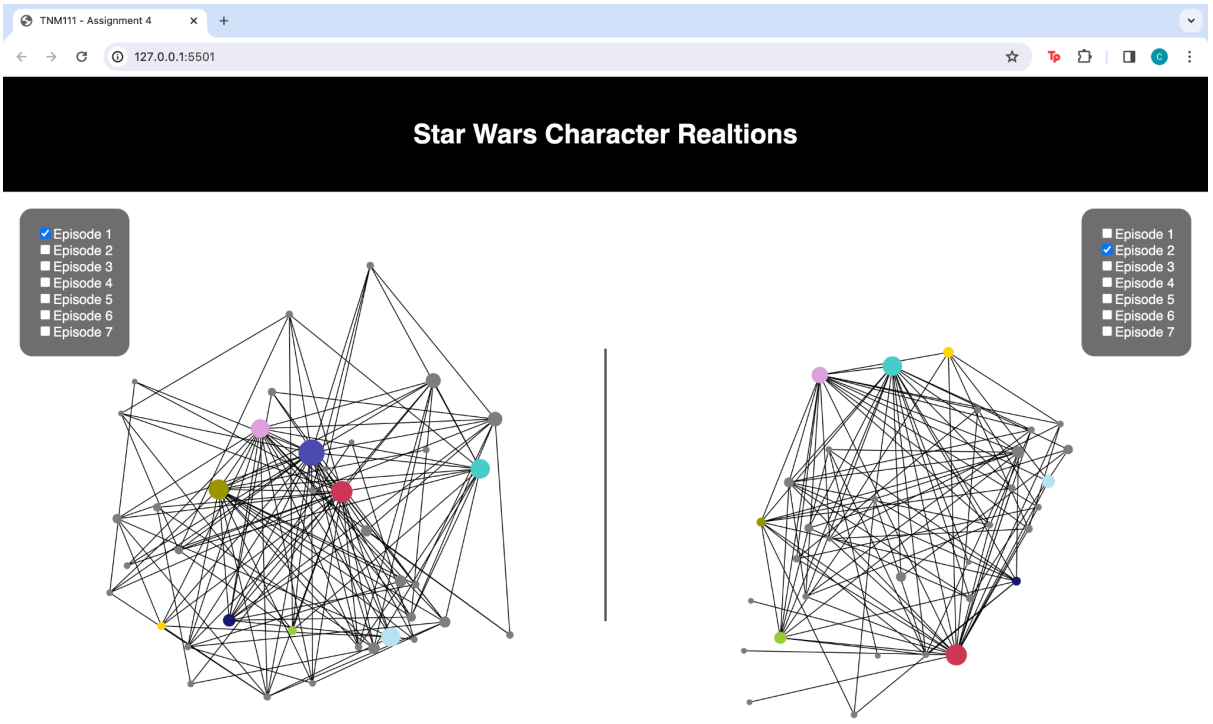
Clara Lennartsson, Salma Gabot
clale106, salga107

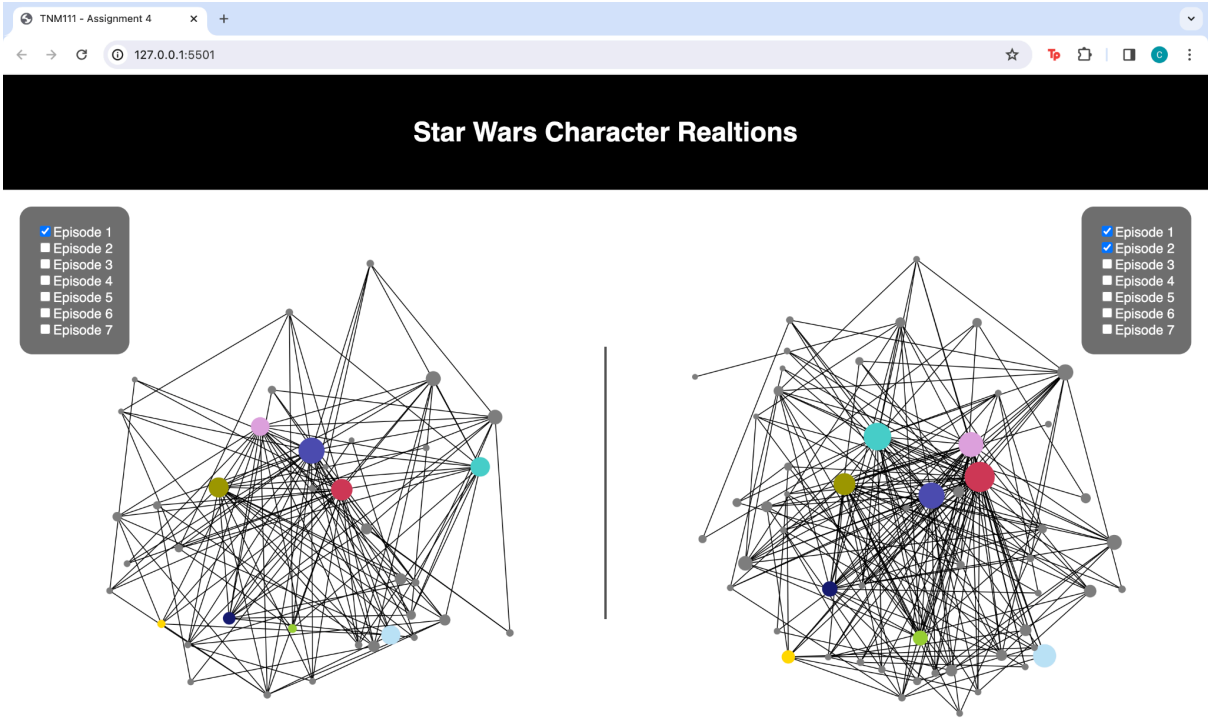
Assignment 4

In this assignment we have created a node-link diagram to visualize character relationships. Below is a short description of our implementation and how you interpret with the data.



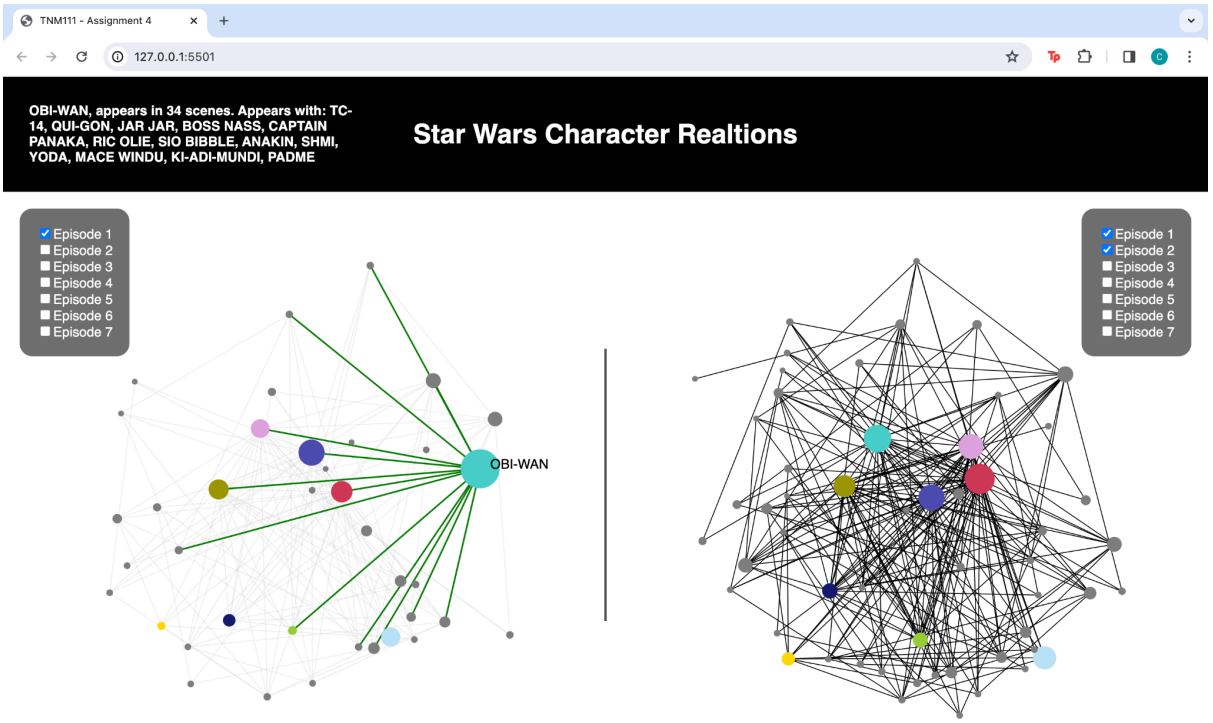
(Figure 1 - Two nodes systems based on different episodes)

This interface contains interactive filtering.The user can use the checkboxes to display two different instances of the node-link diagram in order to support visual comparison of two network states *Figure 1*. In the control panel the user can check one or several episodes in order to compare multiple variations of character relations based on the episodes. The size of the nodes depends on their value. This value increases when several episodes are checked as the value from multiple episodes are added together. This can be seen by comparing the red node in *Figure 2*.



(Figure 2- The size of the nodes)

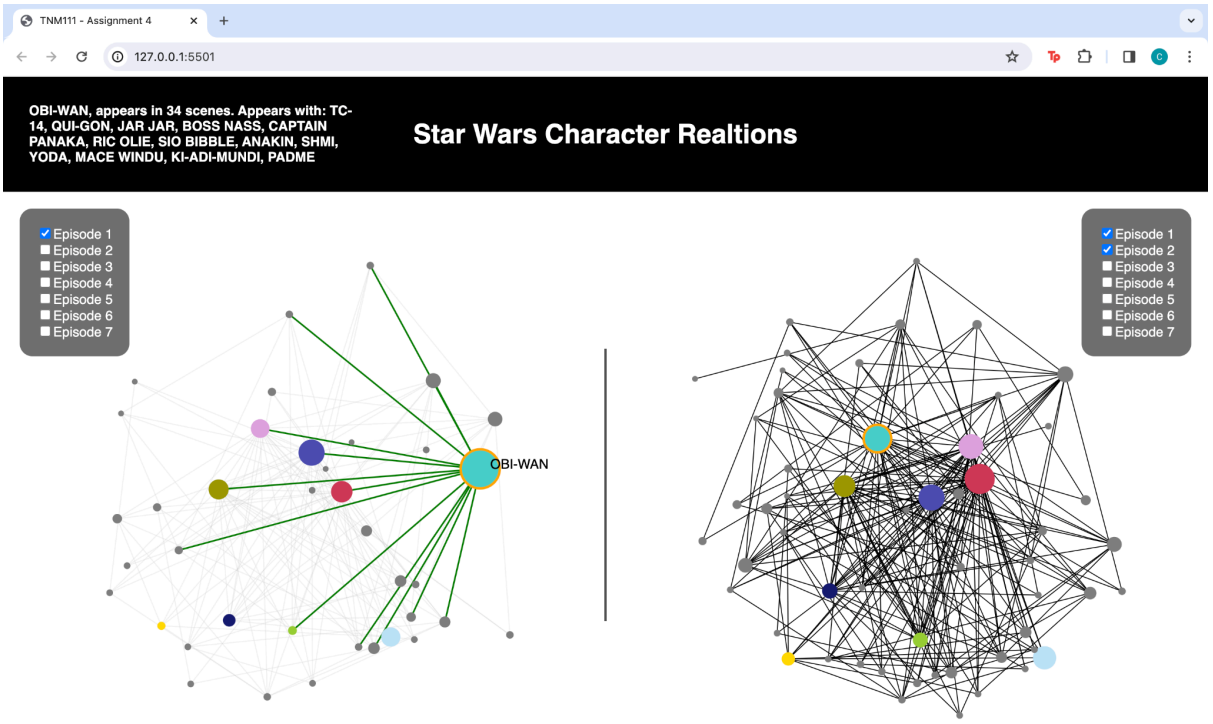
By hovering on a node, the node is highlighted by increasing its size by two as shown in *Figure 3*. The directly connected links are also highlighted by changing their color. To make it more clear the other links, not connected, get lighter while the directly connected links get a green color and a thicker stroke. By hovering over a single link the link gets highlighted and turns pink.
The system provides details on demand. While the user is hovering over a node the name of the character and its value is displayed in the top left corner or top right corner of the header depending on which diagram the node is placed in. The names of the connected nodes are also displayed. When hovering on a link the names of the characters that are connected via the link and its value is displayed.



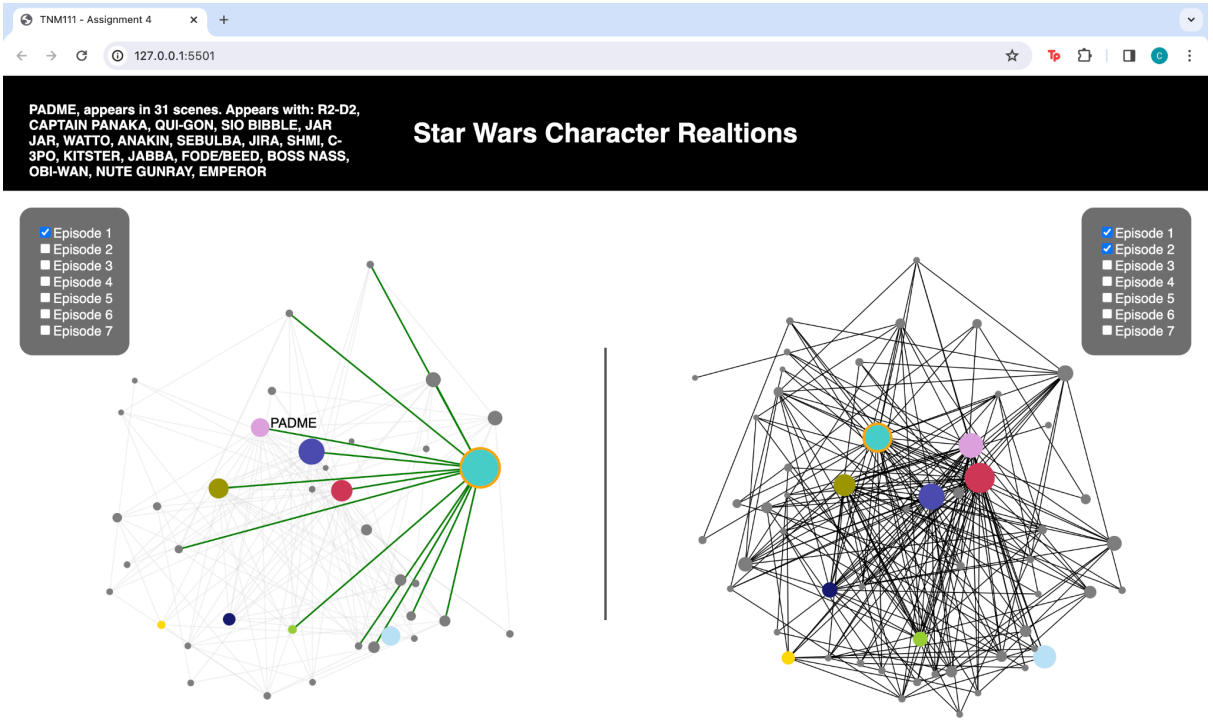
(Figure 3 - hovering on a node)

Clicking on a node also highlights it by displaying a yellow line around the node as well as highlighting the connected links as shown in *Figure 4*. When clicking on a node this node is "locked" i.e you can move the cursor around and look at another node or link without losing the visualization of the clicked node and connected links as shown in *Figure 5 and 6*. The user can lock the same, or different nodes in the two diagrams at the same time which is shown in *Figure 7*.

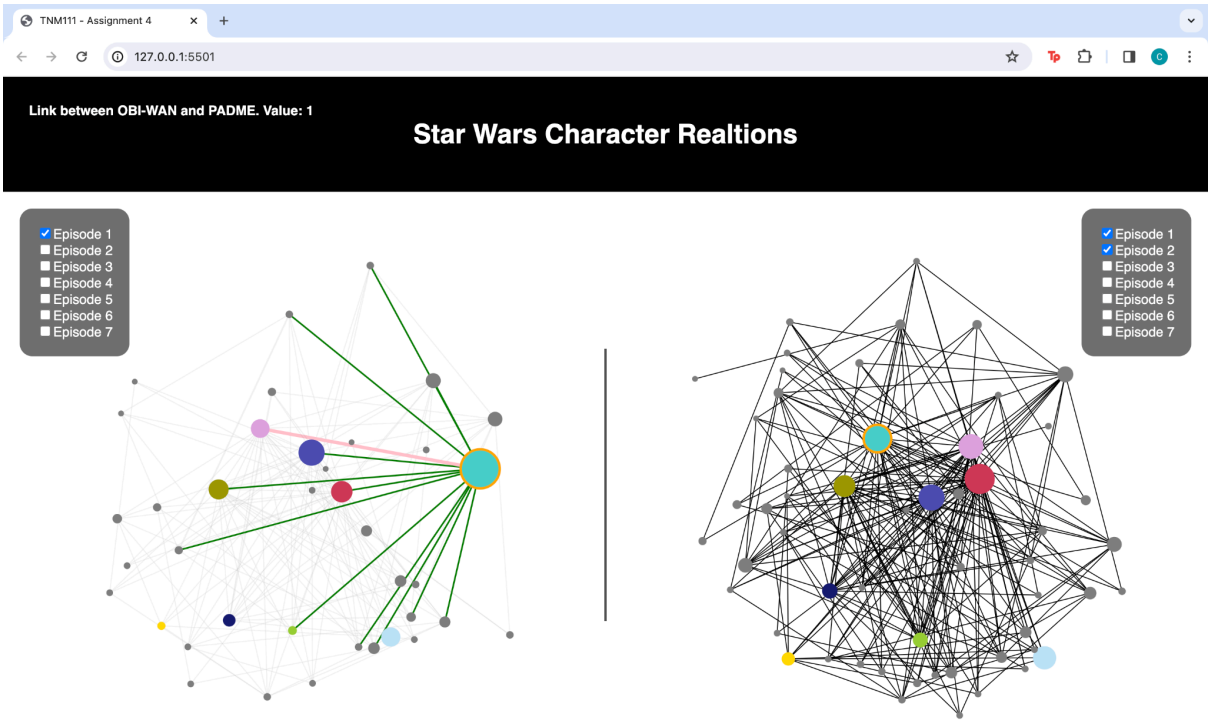
The interface supports linking between the two systems; by clicking on a node the corresponding node in the other diagram is also highlighted with a yellow line around it which you can see in *Figure 4*. If the node does not exist in the other visualization nothing happens.



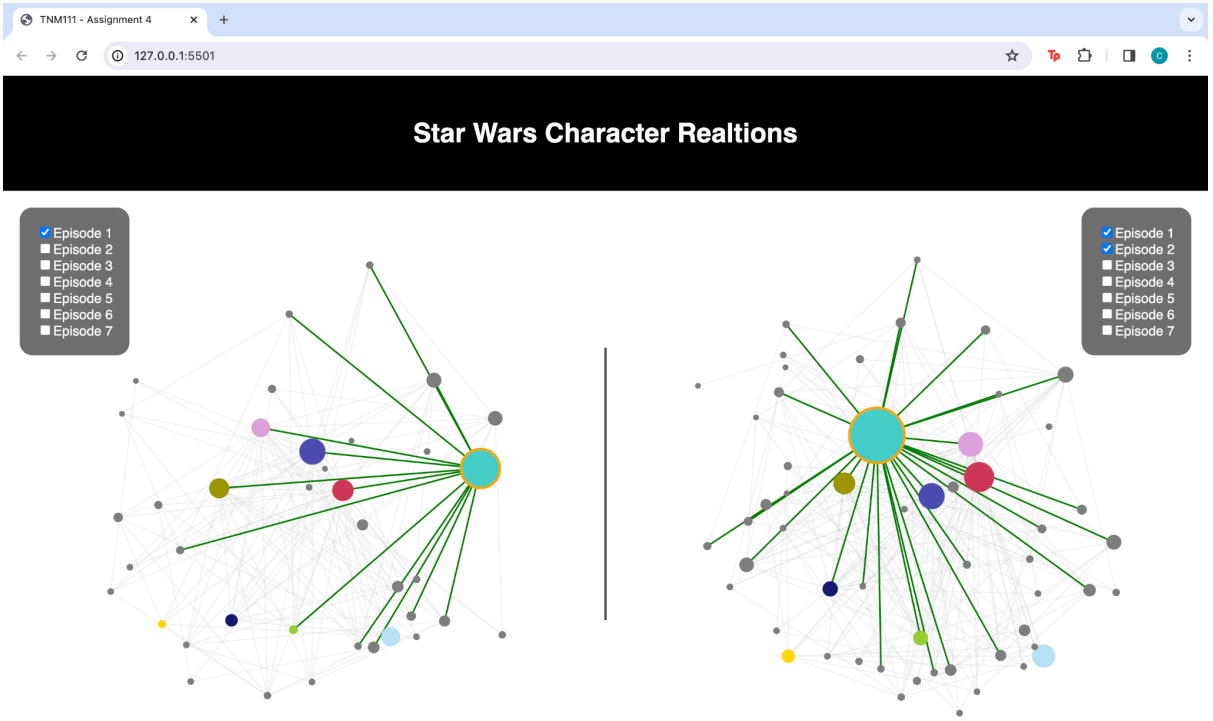
(Figure 4 - clicking on a node, the corresponding node is also highlighted)



(Figure 5 - clicking on a node and then hovering on another node)



(Figure 6 - clicking on a node and then hovering on a link)



(Figure 7 - locking the same node in the other visualization)