Individual Project 4

In this project, you will use d3.js to generate a network graph using the provided JSON data files.

Things to do:

1. Create a network graph using d3.js to represent the characters as nodes and their relationships as edges. You should use appropriate visual elements for nodes and edges.
2. Apply different colors or styles for the edges to represent the type of relationships (e.g. friendship, alliance, rival, etc.)
3. Implement at least two interactive features that allow users to explore the network graph in more details. Be creative for this part. It may include:
   3.1. Hover effects to display character information when user moves mouse cursor over the nodes.
   3.2. Click event to highlight related nodes and edges.
   3.3. Showing a legend to explain the meaning of the different edge types.
   …
4. Use your creative thinking to render the network graph; there is no specific requirements (other than ones described above) for this project.

Data provided

1. You can use json() instead of csv() to read json files.
2. Nodes.json: This file includes characters from three different movies: “Harry Potter and the Sorcerer’s Stone”, “The Lord of the Rights: The Fellowship of the Ring” and “Star Wars: A New Hope”. Each character has attributes “id”, “name”, “movie”, description” and “totalLineNumbers”.
3. Edge-Relation.json: This file includes the relationships among characters. The types of relationships are “close_friends”, “travel_companions”, “mentorship”, “allies”, “unlikely_friends” and more; please refer to the contents in the file.
4. The skeleton code for reading JSON files is provided under “Supplement” Heading in Canvas (jsonReading.html).

For the sample codes generating network graphs, please visit https://observablehq.com/@d3/gallery?utm_source=d3js-org&utm_medium=hero&utm_campaign=try-observable or https://github.com/UBC-InfoVis/2021-436V-examples.

Submit your code to Canvas.