Groups: You are allowed to work with two other persons to complete this assignment. You may choose to submit a single repository per group, but make sure to list the group members in the submission comments.

1. (30 pts)

I have written a program with a GUI for reading a file and drawing a truss as illustrated below.

* 1. While the program is mostly in the MVC pattern, there are still some function calls in the App that are of form self.controller.view.function(). Correct these so that all function calls are directly to the controller.
  2. Add some extra information to each link in the text file and read it in to a modified link class that includes width and thickness of the link and the material of construction (your choice if it is steel or aluminum). You see in the figure below, a tool tip for link 3 that appears when the mouse hovers over that link. Augment this information to include the weight of the link in appropriate units.
  3. There are pin joints for both supports of this truss, but this over constrains the system. Replace the pin joint at the right node with a roller. Also, compute the vertical load at the right and left nodes due to the weight of the truss and display it in the tooltip for the node.

A screenshot of a computer

AI-generated content may be incorrect.