

HW4 problem 3

My program consisted of a set of Nodes and a set of Edges that exist independently of each other. The benefit of this approach is that it simplifies access to Nodes or Edges separately, and visualizing the graph becomes more straightforward. Represented as a set of Edges, this approach offers a straightforward object structure and reduces memory usage as the graph grows. If organized as an adjacency list, every node is associated with a list of its outgoing edges. This makes it simple to track nodes and their children, as well as add Nodes or Edges. An adjacency matrix is another option, which explicitly represents whether there is a link from one edge to another and how many. This method provides a comprehensive overview of all possible Edges, making it easy to access, check, add or remove specific Edges.