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In this program, we implemented Monte Carlo Algorithm without using the DSU data structure using BFS and Adjoint List and Edge list. We worked with an undirected graph and gradually simplified it by repeatedly merging vertices. We first stored the graph using an adjacency list along with an edge list. In each step, we selected the first edge and merged one of its endpoints into the other, which reduced the size of the graph. After merging, we rebuilt the graph using a BFS traversal to ensure that all remaining connections were valid and that no vertex was counted more than once. During this rebuilding process, we removed any self-loops created by merging. We continued this process until only one edge remained, which formed the final result.