

1. Which implementation is better and by how much?
 - Union find should be better. With path compression and my understanding of the algorithm, the time should be on the order of #years appering in the data set while bfs would be $O(V + E) \cdot \text{\#years}$ (by the slides).
2. When does the unionfind data structure significantly outperform BFS (if at all)?
 - On large graphs.
3. What arguments can you provide to support your observations?
 - The orders from part one support part two. 1. Which implementation is better and by how much?
4. When does the unionfind data structure significantly outperform BFS (if at all)?
5. What arguments can you provide to support your observations?