CS218, Winter 2024, Assignment #5 1 Name:

Due: 11:59pm, Wed 03/13, 2024 Training Programming Due: 11:59pm, Wed 03/06, 2024 Student ID:

1 (1.5 pt) Capital City

- Applying tarjans algorithm for finding all strongly connected components and create a condense graph.
- Then we should find if the resulting graph is weakly connected or not.
- If yes then output all the vertices of the component of which has in order 0.
- If graph is not weakly connected then answer is 0.
- Tarjan's algorithm is linear time, finding if the graph is weakly connected is equal to time complexity of BFS.
- \bullet Submission id 250154838

 $^{^{1}}$ Some of the problems are adapted from existing problems from online sources. Thanks to the original authors.