

CS 6301.001. Implementation of data structures and algorithms
Long Project 5: Flow and Postman Tour

Ver 1.0: Initial description (Nov 10th).

Due: 11:59 PM, Sun, Dec 1st (1st deadline), Sun, Dec 8th (2nd deadline).

Max excellence credits: 1.0.

- **Submit before the first deadline to be eligible for excellence credit.**
- Submission procedure is the same as that of prior projects.
- For each group, only its last submission is kept and earlier submissions are discarded.
- Your code must be of good quality, well commented, and pass all test cases within time limits to earn excellence credits.

This project has three parts. Starter code, driver code for each part and test cases are provided.

- a. Implement preflow-push algorithm discussed in the class. You can either use relabel to front or FIFO rule.
- b. Implement cost scaling min cost flow algorithm discussed in the class. Use the max flow algorithm implemented in (a) to initialize the flow.
- c. Implement the algorithm discussed in class for finding an optimal Postman tour in a given directed graph.