## University of Illinois at Urbana-Champaign Department of Mechanical and Industrial Engineering

## **IE411 Optimization of Large-Scale Linear Systems**Fall 2018

In the case the simplex\_step input is not consistent with the test code which does not have BInv, you can choose one of the two options:

- 1. Remove BInv from the input of simplex\_step. This of course means you cannot pass the information to the next pivot unless you define BInv as a global variable.
- 2. Keep BInv as an input of simplex\_step. You will then change the test code to accommodate that.

Another thing I would like to mention is the failure of the initialization procedure, which means that the first phase ends up with an artificial variable still in the basis but taking value zero when we stop the first phase at an optimal solution.

Team	members:

1. Did your code pass all the test cases?

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2. Does your code pass the inverse of the basis to the next pivot in your implementation or not?

Yes, our code passed all the test cases.

3. Did your implement the alternative approach of storing the inverse of the basis as the product of elementary matrices?

No.

4. Did you implement the LU factorization approach?

No.