

## Linear Optimization - Assignment 2

Assumption

1. Polytope is non-degenerate.
2. Rank of A is  $n$

Implement the simplex algorithm to maximize the objective function, You need to implement the method discussed in class.

Input: CSV file with  $m+2$  rows and  $n+1$  column.

The first row excluding the last element is the initial feasible point  $z$  of length  $n$

The second row excluding the last element is the cost vector  $c$  of length  $n$

The last column excluding the top two elements is the constraint vector  $b$  of length  $m$

Rows third to  $m+2$  and column one to  $n$  is the matrix  $A$  of size  $m \times n$

Output: You need to print the sequence of vertices visited and the value of the objective function at that vertex