Copyright (C) 2018, 2012, 2016 by Pearson Education Inc. All Rights Reserved, please visit www.pearsoned.com/permissions/

CP.2.2.1.a, Sauer3

Use code fragments for Gaussian elimination in the previous section to write a python script to take a matrix A as input and output L and U. No row exchanges are allowed—the program should be designed to shut down if it encounters a zero pivot. Check your program by factoring the matrices in EX.2.2.2.a.

(a)
$$\begin{pmatrix} 3 & 1 & 2 \\ 6 & 3 & 4 \\ 3 & 1 & 5 \end{pmatrix}$$