General Instruction:

- Try to optimize your algorithms as much as possible.
- There will be marks allocated for your code optimization , completeness and theoretical understanding.
- Your File and Function names must start with your student no.
  Example: bisection_1505xxx.m

1. Write programs to solve linear algebraic equation [ax=b] using the following methods. You should apply partial pivoting where necessary and your program must handle square matrix of any dimensions. You should also check all other necessary conditions to avoid any error in the program. You also need to show your matrix after each major operation.

a) Gauss Seidel

Prototype

Gauss-Seidel(A, B, Relative Approx. Error, Max iteration)

b) LU Decomposition

Prototype

LU Decomposition (A, B)