```
A = [5 4 7 2; -3 1 6 4; 1 3 4 5; 0.5 2 8 7];
B = [1;2;3;4];

[L,U] = lu(A);

D = L\B;
X = U\D;

X = round(X,4)

Bnew = A*X;

dB = Bnew - B;

D = L\dB;
dX = U\D

Xf = X+dX;

fprintf('Xf = \n')
fprintf('%.8f\n', Xf)
```

```
X =

    0.0545
   -0.0143
   -0.0760
    0.6585


dX =

   1.0e-04 *

   -0.1937
    0.4720
    0.4017
   -0.3659

Xf =
0.05448063
-0.01425280
-0.07595983
0.65846341
```

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