Here are the results of the project after processing the random 10x10 matrix and vector provided in the CSV files with the project:

b =
[0.13706918510000002 1.209306703 2.6622069790000005 2.893343756 0.4163584009 4.710946953 8.122113414 3.615475763 0.7836915215 4.952753768]^T
A =

8.425545539 7.713970228 6.125792741 3.640608834 2.735232822 3.4135831439999995 3.405969484 1.662013146 4.284415924 9.961601222
7.407207296 5.528522038 0.7075680168999999 7.834522097 0.2707810343 4.785245574 1.385793916 4.118648402 5.169670726 6.896274437
5.6271965250000004 7.890378122 3.441897258 4.122175186 2.117167629 5.917598556 7.89426616 2.247690932 8.533896090999999 1.223277256
1.722494158 2.964915785 6.038676049 3.712956714 1.17189106 7.35400092 6.559982049 6.120355925999999 7.894228787 6.385382390999999
5.431463048 0.5974467646 4.243728540999999 9.333748332 8.495282744 1.574934365 9.269619459000001 2.2450703990000003 1.0876758290000001 7.389034338
1.020832718 9.559811883 2.040712896 6.116903971999999 0.5864997498 2.773048274 9.548854587 4.682306761 5.476550324 1.521336674
4.509140856 6.8807306420000005 4.564688523 2.932689807 4.642848203 9.306019054 6.719550312 4.499884704 3.103053417 3.382776784
2.723218562 5.195629665 6.715435589999999 5.372128532 8.359343221 7.029397337 2.6305730240000003 3.424439171 3.966917391 5.556132571
3.522540321 5.54451983 6.3093557239999996 6.680926463 7.7515150550000005 8.517538035 3.995834779 7.086174165 7.749346319 7.604545187
7.265354704 7.393588126 3.777560821 6.353495053 5.4986072340000005 6.890652032 8.899309276 7.085075047 3.168533388 9.848727896

B =

166.18060335353002 128.70055999669648 124.86648111899403 123.07410884425053 126.26562309117551 103.55479565284344 125.76653570724636 128.78695868139198 160.02071408887713 178.42605175903887
128.70055999669648 131.72567418605615 110.83790189090934 108.58240271109766 104.08606799256954 97.26483984252523 105.32546041424072 104.1049967383708 141.8181440101433 153.70840448048511
124.86648111899403 110.83790189090934 151.97905327240863 127.94936472279865 106.10479947895212 132.7841207631438 133.072044593094 114.99351061916963 151.27370585719007 158.04890045225437
123.07410884425053 108.58240271109766 127.94936472279865 150.52405173703846 111.63215078910578 115.23144445967336 129.10816429267126 123.54683511683182 168.22510173750848 163.79937835031632

126.26562309117551 104.08606799256954 106.10479947895212 111.63215078910578
178.1915618279824 101.29204741749513 115.1029347388073 128.03163529937186
154.20605376631013 175.69741187807102
103.55479565284344 97.26483984252523 132.7841207631438 115.23144445967336
101.29204741749513 143.72929697212314 116.76952954519959 97.37043949123964
131.92625550002188 148.74613530172616
125.76653570724636 105.32546041424072 133.072044593094 129.10816429267126
115.1029347388073 116.76952954519959 145.8726621682622 131.42759597162652
163.09453980778454 171.99665315742607
128.78695868139198 104.1049967383708 114.99351061916963 123.54683511683182
128.03163529937186 97.37043949123964 131.42759597162652 146.45605694596938
174.5509529989959 163.53198432588823
160.02071408887713 141.8181440101433 151.27370585719007 168.22510173750848
154.20605376631013 131.92625550002188 163.09453980778454 174.5509529989959
222.1446070452929 209.69847037585137
178.42605175903887 153.70840448048511 158.04890045225437 163.79937835031632
175.69741187807102 148.74613530172616 171.99665315742607 163.53198432588823
209.69847037585137 238.11809772422833


Approximate Solution to Ax=b:
x' = [-0.7497318780796536 0.5703838862604831 -0.31392964545334906
0.02916281453256183 -1.4455204921755542 0.23830573936507388 0.7606583810215242
0.13676924773841945 -0.7561408732958288 0.7461482791146973]^T


System Created Rounding Error
b' = [0.13706918509999966 1.2093067029999993 -1.5566816400115426
3.2930751638247795 -4.647240779647367 8.936104636008958 0.6073268751967373
-7.822668687226019 -6.616354111604514 4.154353800683568]^T
Difference: [3.608224830031759E-16 6.661338147750939E-16 4.218888619011543
-0.39973140782477934 5.063599180547367 -4.225157683008958 7.514786538803262
11.43814445022602 7.400045633104514 0.7983999673164321]^T
one-norm: 41.05875347984288
two-norm: 17.439956523839484
inf-norm: 11.43814445022602


Eignenvalues of B
J =
[166.18060335353002 131.72567418605615 151.97905327240863 150.52405173703846
178.1915618279824 143.72929697212314 145.8726621682622 146.45605694596938
222.1446070452929 476.23619544845667]^T

The processing took 9442700 nano seconds.