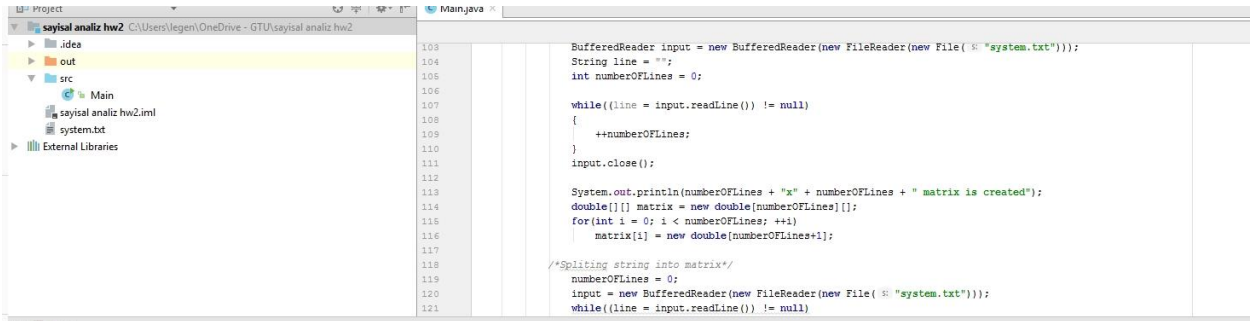
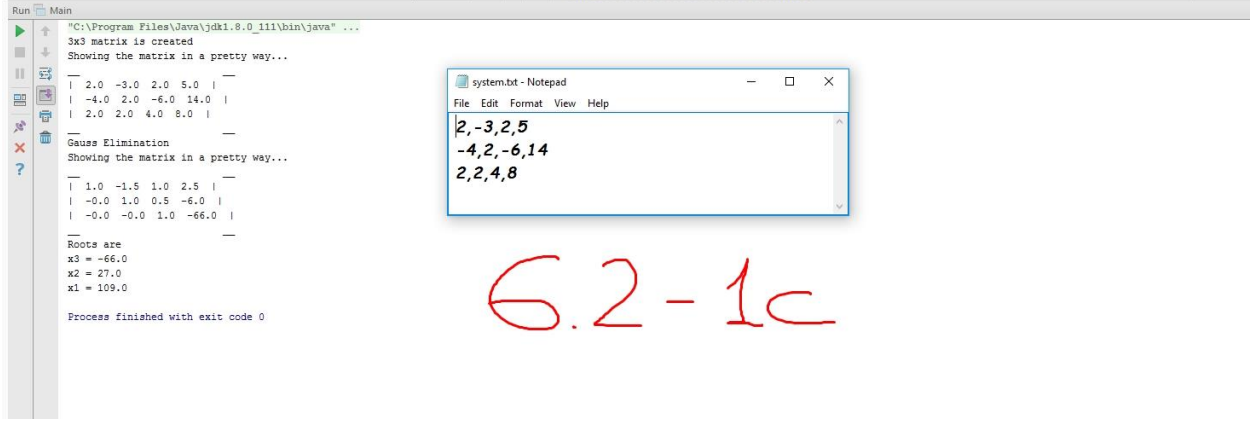
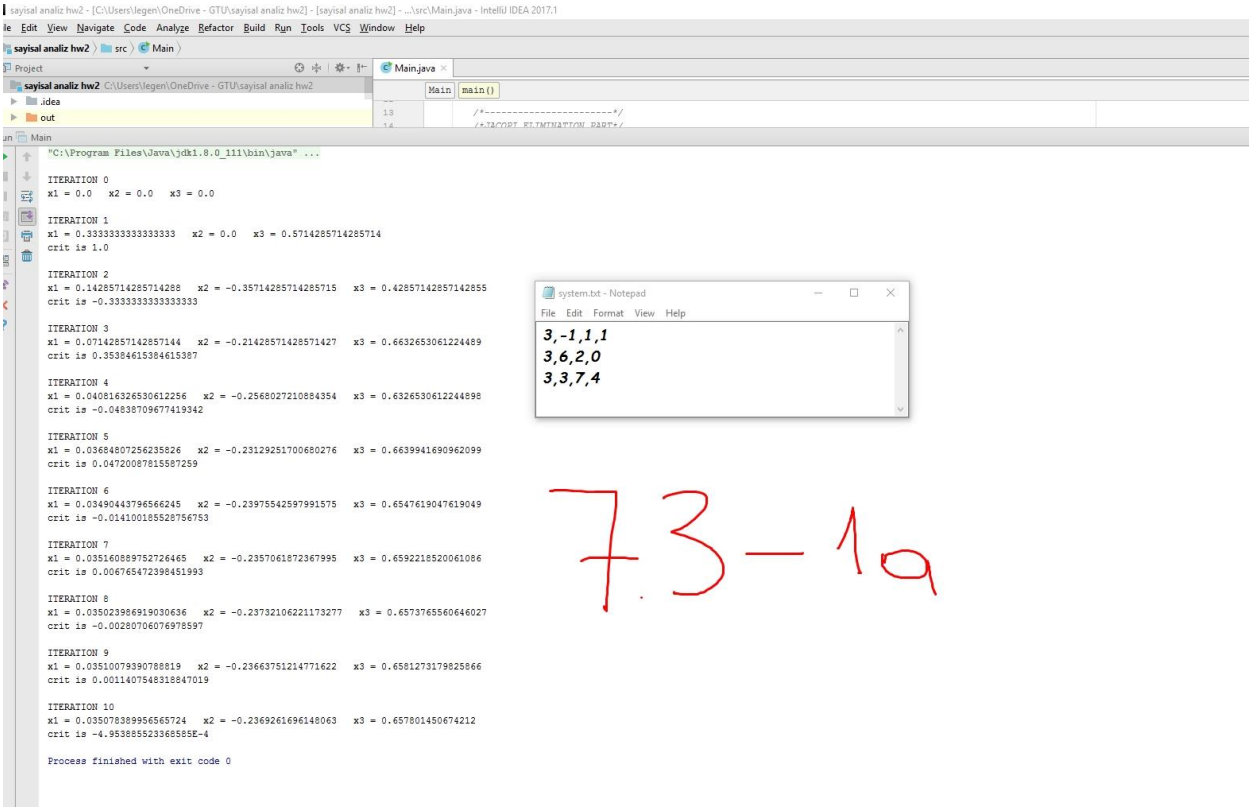
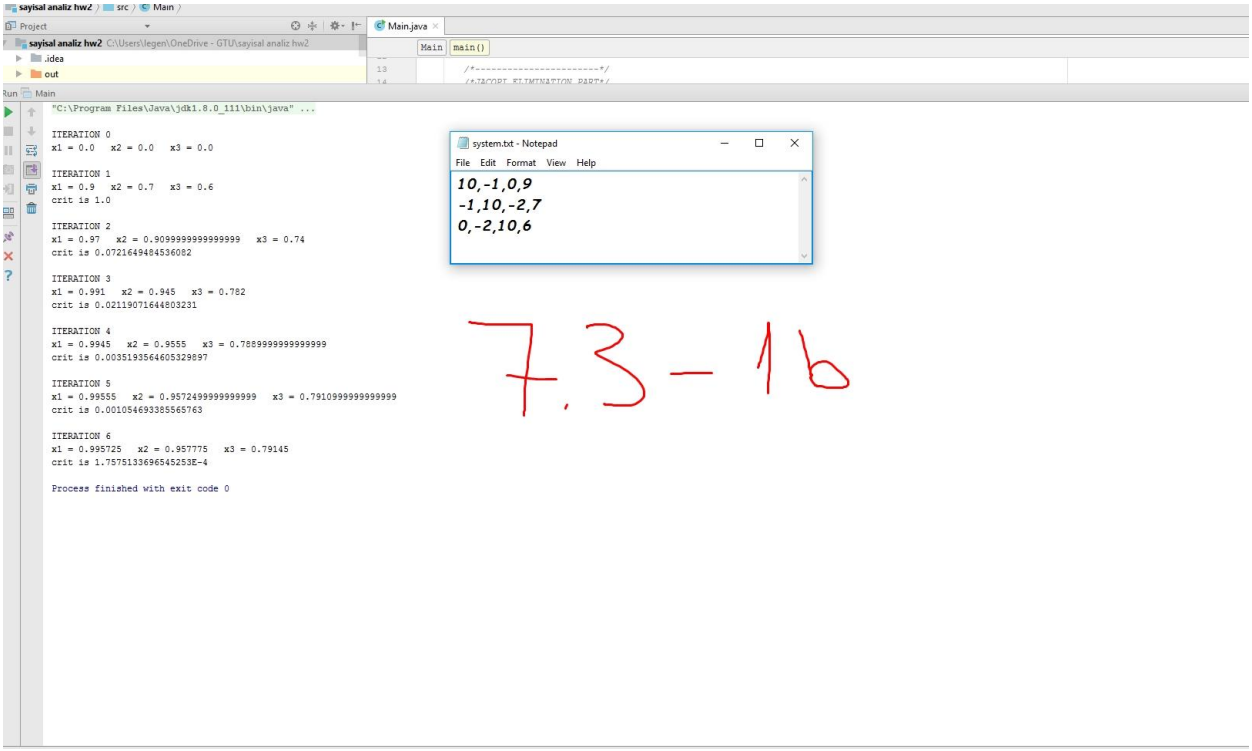

Project
sayisal analiz hw2 C:\Users\legen\OneDrive - GTU\sayisal analiz hw2
.idea
out
src
Main
sayisal analiz hw2.iml
system.txt
External Libraries
Main.java
BufferedReader input = new BufferedReader(new FileReader(new File("system.txt")));
String line = "";
int numberOFLines = 0;
while((line = input.readLine()) != null)
{
++numberOFLines;
}
input.close();
System.out.println(numberOFLines + "x" + numberOFLines + " matrix is created");
double[][] matrix = new double[numberOFLines][];
for(int i = 0; i < numberOFLines; ++i)
matrix[i] = new double[numberOFLines+1];
/*Spliting string into matrix*/
numberOFLines = 0;
input = new BufferedReader(new FileReader(new File("system.txt")));
while((line = input.readLine()) != null)


Run Main
"C:\Program Files\Java\jdk1.8.0_111\bin\java" ...
3x3 matrix is created
Showing the matrix in a pretty way...
| 2.0 -3.0 2.0 5.0 |
| -4.0 2.0 -6.0 14.0 |
| 2.0 2.0 4.0 8.0 |
Gauss Elimination
Showing the matrix in a pretty way...
| 1.0 -1.5 1.0 2.5 |
| -0.0 1.0 0.5 -6.0 |
| -0.0 -0.0 1.0 -66.0 |
Roots are
x3 = -66.0
x2 = 27.0
x1 = 109.0
Process finished with exit code 0
system.txt - Notepad
File Edit Format View Help
2,-3,2,5
-4,2,-6,14
2,2,4,8

6.2 - 1c


sayisal analiz hw2 - [C:\Users\legen\OneDrive - GTU\sayisal analiz hw2] - [sayisal analiz hw2] - ...\src\Main.java - IntelliJ IDEA 2017.1
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
sayisal analiz hw2 src Main
Project
sayisal analiz hw2 C:\Users\legen\OneDrive - GTU\sayisal analiz hw2
.idea
out
Main.java
Main main()
Main
"C:\Program Files\Java\jdk1.8.0_111\bin\java" ...
ITERATION 0
x1 = 0.0 x2 = 0.0 x3 = 0.0
ITERATION 1
x1 = 0.3333333333333333 x2 = 0.0 x3 = 0.5714285714285714
crit is 1.0
ITERATION 2
x1 = 0.14285714285714288 x2 = -0.35714285714285715 x3 = 0.42857142857142855
crit is -0.3333333333333333
ITERATION 3
x1 = 0.07142857142857144 x2 = -0.21428571428571427 x3 = 0.6632653061224489
crit is 0.35384615384615387
ITERATION 4
x1 = 0.040816326530612256 x2 = -0.2568027210884354 x3 = 0.6326530612244898
crit is -0.04838709677419342
ITERATION 5
x1 = 0.03684807256235826 x2 = -0.23129251700680276 x3 = 0.6639941690962099
crit is 0.04720087815587259
ITERATION 6
x1 = 0.03490443796566245 x2 = -0.23975542597991575 x3 = 0.6547619047619049
crit is -0.014100185528756753
ITERATION 7
x1 = 0.035160889752726465 x2 = -0.2357061872367995 x3 = 0.6592218520061086
crit is 0.006765472398451993
ITERATION 8
x1 = 0.035023986919030636 x2 = -0.23732106221173277 x3 = 0.6573765560646027
crit is -0.002807060769785 97
ITERATION 9
x1 = 0.03510079390788819 x2 = -0.23663751214771622 x3 = 0.6581273179825866
crit is 0.001140754831884 7019
ITERATION 10
x1 = 0.035078389956565724 x2 = -0.2369261696148063 x3 = 0.657801450674212
crit is -4.953885523368585E-4
Process finished with exit code 0
system.txt - Notepad
File Edit Format View Help
3,-1,1,1
3,6,2,0
3,3,7,4

7.3 - 1a


sayisal analiz hw2 > src > Main
Project
sayisal analiz hw2 C:\Users\legen\OneDrive - GTU\sayisal analiz hw2
.idea
out
Main.java
Main
main()
Run
Main
"C:\Program Files\Java\jdk1.8.0_111\bin\java" ...
ITERATION 0
x1 = 0.0 x2 = 0.0 x3 = 0.0
ITERATION 1
x1 = 0.9 x2 = 0.7 x3 = 0.6
crit is 1.0
ITERATION 2
x1 = 0.97 x2 = 0.9099999999999999 x3 = 0.74
crit is 0.0721649484536082
ITERATION 3
x1 = 0.991 x2 = 0.945 x3 = 0.782
crit is 0.0211907164480323 1
ITERATION 4
x1 = 0.9945 x2 = 0.9555 x3 = 0.7889999999999999
crit is 0.0035193564605329897
ITERATION 5
x1 = 0.99555 x2 = 0.9572499999999999 x3 = 0.7910999999999999
crit is 0.0010546933855657 63
ITERATION 6
x1 = 0.995725 x2 = 0.957775 x3 = 0.79145
crit is 1.7575133696545253E-4
Process finished with exit code 0
system.txt - Notepad
File Edit Format View Help
10,-1,0,9
-1,10,-2,7
0,-2,10,6
7.3 - 16