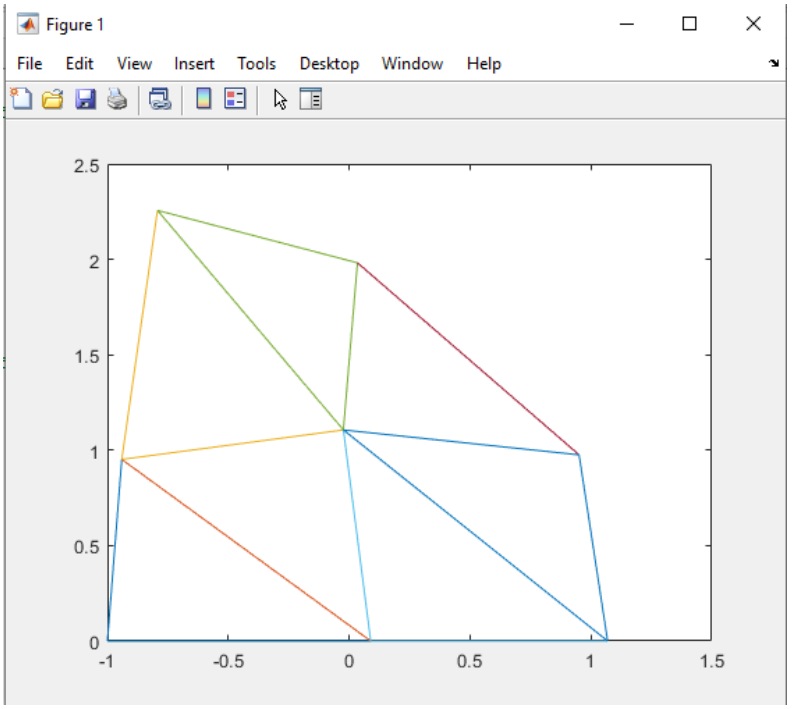
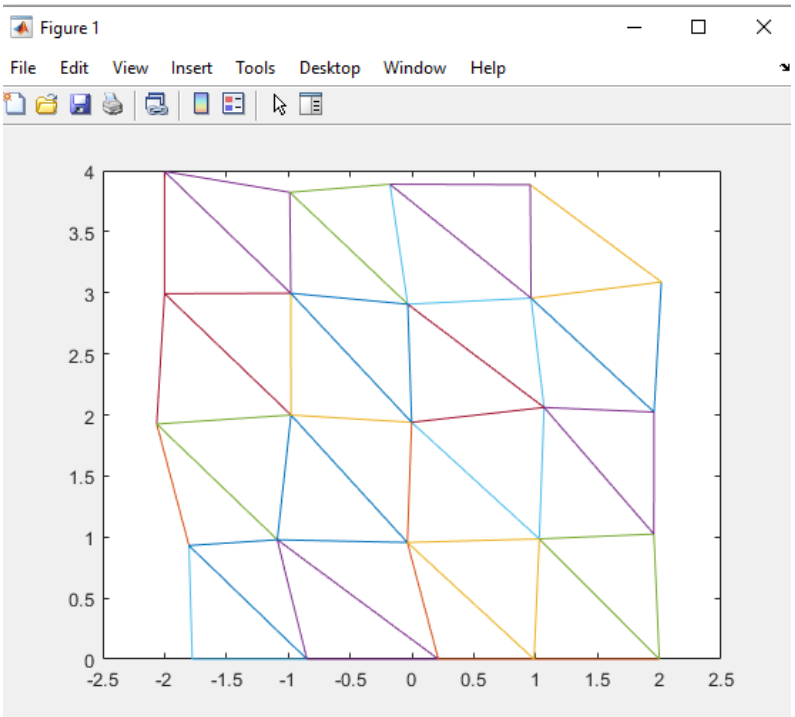
Assignment 4: The Finite Element Method

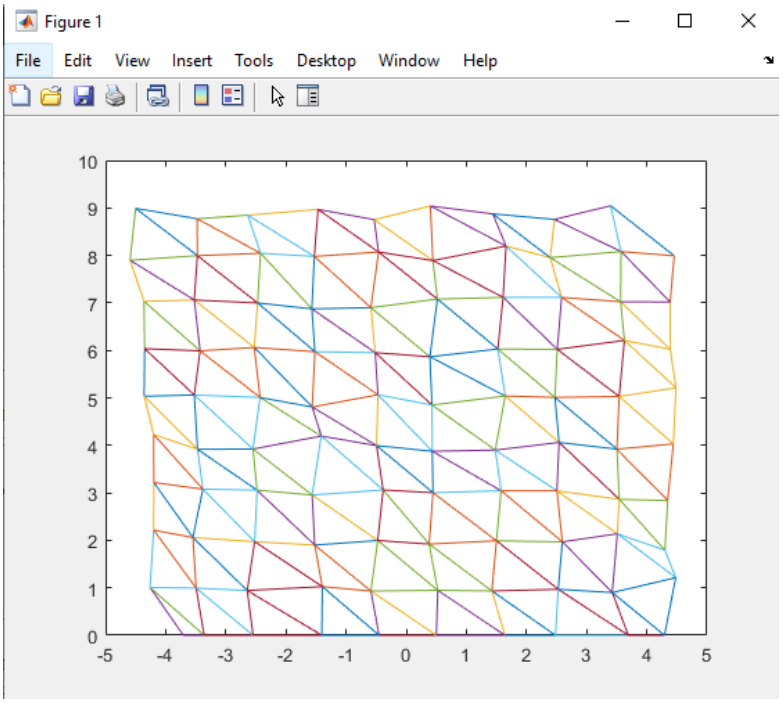
Screenshots



3x3



5x5



10x10

Referenced Materials:

https://www.continuummechanics.org/deformationgradient.html

http://what-when-how.com/the-finite-element-method/fem-for-two-dimensional-solids-finite-element-method-part-1/ - I donno what is this but somehow it actually teach me something

https://mycourseville-default.s3.ap-southeast-1.amazonaws.com/useruploaded_course_files/2020_2/22835/materials/08_FEM-14532-16171199284097.pdf “greatest slide of all time” - 2021

Problems:

```
>> fem2D
Warning: Failure at t=8.156811e-02.  Unable to meet integration tolerances without reducing the step size below the smallest value allowed (2.220446e-16) at time t.
> In ode45 (line 360)
In fem2D (line 15)
```

Error might happen from the formula that i use for calculating stress i think

Soln - may try refracting code perhaps

Extra credits: Nope I’m sorry

Comments: It’s a bit tricky to understand the bulk of the code, but trial and error error error gives me some results yay!