

```
C:\Users\CCLaptop\anaconda3\python.exe C:/Users/CCLaptop/Desktop/  
Nho-m-1-project-1/Trusses2D.py
```

Global Stiffness Matrix of the Truss

```
[[ 102859.126965      0.      -102859.126965      0.  
    0.      0.      ]  
 [      0.      115000.      0.      0.  
    0.     -115000.      ]  
 [-102859.126965      0.      145451.719558  -38095.97295  
  -42592.592593   38095.97295 ]  
 [      0.      0.     -38095.97295   34074.074074  
   38095.97295  -34074.074074]  
 [      0.      0.     -42592.592593   38095.97295  
   42592.592593  -38095.97295 ]  
 [      0.     -115000.      38095.97295  -34074.074074  
  -38095.97295   149074.074074]]
```

***Positive is Tensile
Negetive is Compressive***

Displacement matrix of nodes (mm)

```
[[ 0.      ]  
 [ 0.      ]  
 [-0.108696]  
 [-0.50196 ]  
 [ 0.      ]  
 [-0.086957]]
```

Strain in the elements

```
[[-2.429879e-05]  
 [-2.173913e-05]  
 [ 3.261072e-05]]
```

Stress in the elements

```
[[-4.859757]  
 [-4.347826]  
 [ 6.522144]]
```

Process finished with exit code 0