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***Instruction on how to run the code***

**I have to apologize first that I could not optimize my code and in some cases it takes too much time to run.**

**Part C, D, E:**

Please open the corresponding folder. There are many functions in each folder that were called in the main code. So, in order to get the pressure contour and velocity contours please run **maincode**. In this code I imported nodes.txt and elements.txt as input from gmsh. If you decided to change the coefficients, please find them at the beginning of the code.

In meshfiles folder you can find the mesh that I used for each case.

In contour folder you can find contours for each case.

Estimated running time for part C: **20 minutes**

Estimated running time for part C-h2: **2 hours**

Estimated running time for part C-h3: **6 hours**

Estimated running time for part C-h4: **12 hours**

Estimated running time for part D: **1 hour**

Estimated running time for part E: **20 minutes**

