Homework 3

Write a MATLAB/Python code for solving the worked example we have done in class (example 6-2 of the book). Please use 4 u-velocity control volumes.

1. First of all please do not use under-relaxation. How many iterations do you need to reach convergence?

2. Now use under-relaxation. The book claims that the number of the iterations necessary to reach convergence is 19. Is it correct? Check.

3. (Optional). Obtain the solution also for 10, 20, 50 and 1000 grid points.