



PROJECT I

Due March 29, 2017

Derive the full stiffness matrix and load vector for the 4-node rectangular finite element shown below. Assume that the applied loads are only applied at the nodes (no need to calculate consistent nodal loads due to body or surface loads).

Implement the derived stiffness matrix into the MatLab program. Choose a problem with known 'exact' answer and conduct convergence studies to see how fast the solution converges to the exact answer.

Submit a comprehensive report documenting your efforts along with a copy of the revised program by email.

