Lab-13

Develop the structural stiffness matrix of the previous diagram and write down the results.

1. Consider all the previous method for the development of elemental stiffness matrix
2. Structural Stiffness Matrix, Ks.

   The structural stiffness matrix is a square, symmetric matrix with dimension equal to the number of degrees of freedom. In this step we will fill up the structural stiffness matrix using terms from the element stiffness matrices in global coordinates This procedure is called matrix assembly.

   The element degrees of freedom (1,2,3,4) line up with the structural degrees of freedom in your problem. For example, coordinates (1,2,3,4) might line up with degrees of freedom (3,4,7,8) of the Beam. In this case, to assemble this element into the structural stiffness matrix,