

```

function [i_append, j_append, val_append] = Assemble_NoBC(m,fespace)
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% $Code Version: 1.0$
% This function performs the act of assembling the local element stiffness
% matrix to the Global Stiffness matrix.
% Inputs : m          - local element stiffness matrix to assemble
%          fespace     - the finite element space of the corresponding element
% Outputs: i_append    - the 'i' idx of the Global Sparse Matrix to append
%          j_append     - the 'j' idx of the Global Sparse Matrix to append
%          val_append   - the value to add at the 'i,j' location of the
%                        Global Sparse Matrix

% No Boundary conditions are applied in this assembly process

i_append = [];
j_append = [];
val_append = [];

n = length(m);
k = 1;

for i=1:n
    eq_num = fespace.ElemDOF(i);
    for j=1:n
        col = fespace.ElemDOF(j);
        i_append(k,1) = eq_num;
        j_append(k,1) = col;
        val_append(k,1) = m(i,j);
        k = k + 1;
    end
end

end

```

