```
% Solve Partitioned Finite Element Matrix System
%
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%Move Constrained DOF to RHS
% fdtilda: Fd - the force due to the prescribed displacements
% Basically doing static condensation
% And then solve.....


Fdtilda = zeros(neq,1);
rhs= zeros(neq,1);
for i = 1:neq

    rhs = zeros(neq,1);
    for j = 1:nieq
       rhs(i) = rhs(i) + Kdf(i,j)*ModelDc(j);
    end
    Fdtilda(i) = Fd(i) - rhs(i);

end

% Solving the Linear System :

Mstar = Mdd/beta/delt^2+(1+alpha)*Kdd  ;
R = (1+alpha)*(FEXT(:,n+1)-F_bar_int) - alpha*(FEXT(:,n)-IntF_store(:,n))- Mdd * a

ModelDx = mldivide(Mstar,R);

% Updating the displacement iterate (corrector):

dis(:,storej+1)  = dis(:,storej) + ModelDx;

% Updating the velocity and acceleration iterate (corrector) :
acc(:,storej+1) = 1/beta/delt^2*(dis(:,storej+1)-dn(:,n) - delt * vn(:,n))-(1/(2*b
vel(:,storej+1)  = vn(:,n) + delt*((1-gamma)*an(:,n) + gamma*acc(:,storej+1));

% Updating the Residual for the iterate :
res = norm(abs(R));
```

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