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function [I, b] =GaussJordan(A,y)
[n,~] = size(A);
for i = 1:n-1
    for j = i+1:n
        alpha = A(j,i)/A(i,i);
        for k = i:n
            A(j,k) = A(j,k) - alpha*A(i,k);
        end
        y(j) = y(j) - alpha*y(i);
    end
end
for i = n:-1:2
    for j = i-1:-1:1
        alpha = A(j,i)/A(i,i);
        for k = i:n
            A(j,k) = A(j,k) - alpha*A(i,k);
        end
        y(j) = y(j) - alpha*y(i);
    end
end
for i = 1:n
    y(i) = y(i)/A(i,i);
    A(i,i)=A(i,i)/A(i,i);
end
b = y;
I=A;
end
```

*Published with MATLAB® R2020a*