```
function [integrin] = stateActandLig(integrin, Pa)
% user defined function that will change the activation state and ligand
% bound state

% for loop to change the state of each integrin if its random generated
% number is less than the activation probability (Pa)

% the integrin's initial activation state and ligand bound state is false
% (0)
for i = 1:numel(integrin)
    if ~integrin(i).activation_state
        if rand() < Pa
            integrin(i).activation_state = 1; % True is represent by 1
            integrin(i).ligand_state = 1;
        end
    end
end

% it will stay false if it fails the test and stay as inactive and unbound
% it will change to true if it passes the test and change to active and
% bound
```