```
%%
%   CLAB2 Task-1: Harris Corner Detector
%   Your name (Your uniID)
%

sigma = 2; thresh = 0.01; maskSize = 11; disp= 0;  % Initialize convolution size, threshold, mask size

% Derivative masks
dy = [-1 0 1;-1 0 1; -1 0 1];
dx = dy'; % dx is the transpose matrix of dy

% compute x and y derivatives of image
Ix = conv2(bw,dx,'same');
Iy = conv2(bw,dy,'same');
```

[redacted]

```
g = fspecial('gaussian',max(1,fix(6*sigma+1)),sigma);
Ix2 = conv2(Ix.^2,g,'same');  % x and x
Iy2 = conv2(Iy.^2,g,'same');  % y and y
Ixy = conv2(Ix.*Iy,g,'same'); % x and y

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%   Task: Compute the Harris Cornerness R
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

[redacted]

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%   Task: Perform non-maximum suppression and threshold, and display your result
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

[redacted]

```
[rws,cols] = find(cornerness);
figure, imshow(YOUR IMAGE);
hold on;
p = [cols, rws];
plot(p(:,1),p(:,2),'or');
title('Harris Corners');
```