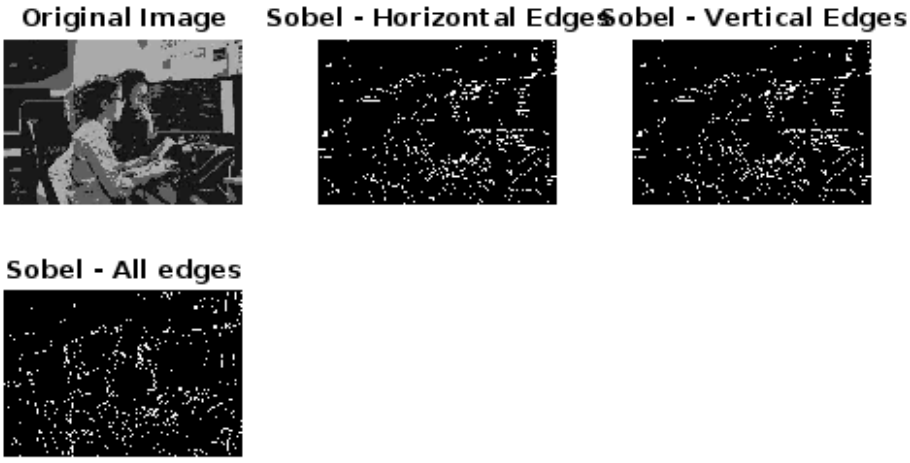
```
clc;
close all;
clear all;

% Read Colour Image and convert it to a grey level Image
% Display the original Image
mycolourimage = imread('image1.jpg');
myimage = rgb2gray(mycolourimage);
subplot(3,3,1);
imshow(myimage); title('Original Image');

% Apply Sobel Operator
% Display only the horizontal Edges
sobelhz = edge(myimage,'sobel','horizontal');
subplot(3,3,2);
imshow(sobelhz,[]); title('Sobel - Horizontal Edges');

% Apply Sobel Operator
% Display only the vertical Edges
sobelvrt = edge(myimage,'sobel','vertical');
subplot(3,3,3);
imshow(sobelhz,[]); title('Sobel - Vertical Edges');

% Apply Sobel Operator
% Display both horizontal and vertical Edges
sobelvrthz = edge(myimage,'sobel','both');
subplot(3,3,4);
imshow(sobelvrthz,[]); title('Sobel - All edges');
```



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