Lab4 Assassignment :)

Student: **Aibol Kussain @ EN3-A-03**

Contents

This lab we will study finding difference in two similar pictures.

Step 1

First, download two similar images and load them to MATLAB.

```
i1 = imread('1.jpg');
i2 = imread('2.jpg');

subplot(1,2,1), imshow(i1);
subplot(1,2,2), imshow(i2);
```


Step 2

Finding difference by substracting images. Then, we should make it black and white to easily distinguish different areas.
Now, we can see differences in black/white picture

```
D = imabsdiff(i1,i2);
BW = im2bw(D, .1);
imshow(BW);
```


Step 3

Here we find differences those are big enough(not to small, to not point spots). Then plot them in original picture

```
subplot(1,2,1), imshow(i1);
subplot(1,2,2), imshow(i2);
diffs = regionprops(BW, 'BoundingBox');
len = size(diffs);
for i = 1:len
    if diffs(i).BoundingBox(3) * diffs(i).BoundingBox(4) > 10
        subplot(1, 2, 1), rectangle('Position', diffs(i).BoundingBox, 'EdgeColor', 'blue',
 'LineWidth', 2);
        subplot(1, 2, 2), rectangle('Position', diffs(i).BoundingBox, 'EdgeColor', 'blue',
 'LineWidth', 2);
    end
end
```