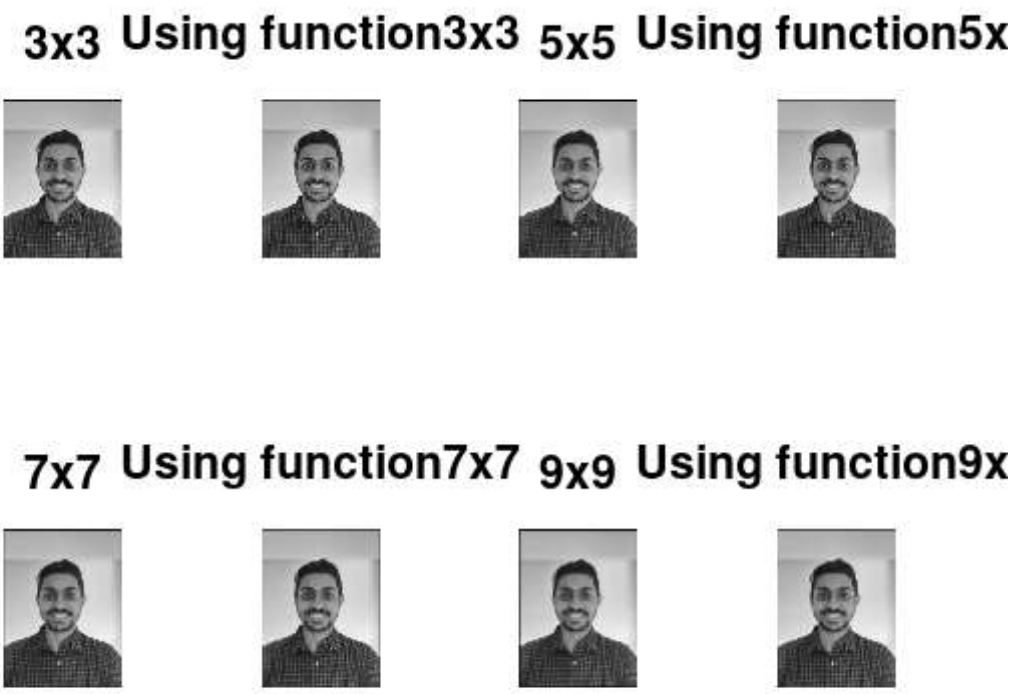
I6_1

```
me = imread('ME.png');
me_g = rgb2gray(me);

j=1;
for i=3:2:10
  window = (1/(i*i))*ones(i,i);
  output = spatial_filter(me_g,window);
  subplot(2,4,j);
  output = uint8(output);
  imshow(output);
  title([num2str(i),'x',num2str(i)]);
  subplot(2,4,j+1);
  imshow(imfilter(me_g,window));
  title(['Using function',num2str(i),'x',num2str(i)]);
  j=j+2;
end
```



I6_2

```
me = imread('ME.png');
me_g = rgb2gray(me);

weighted_filter = [2,4,2;4,8,4;2,4,2];
sum_weighted_filter = sum(sum(weighted_filter));
window = weighted_filter*(1/sum_weighted_filter);
window2 = (1/9)*ones(3,3);
output = spatial_filter(me_g,window);
subplot(2,1,1);
imshow(uint8(output));
title('3x3 Weighted Filter');

output2=spatial_filter(me_g,window2);
subplot(2,1,2);
imshow(uint8(output2));
title('3x3 Std Filter');
```

I6_3

```
me = imread('ME.png');
me_g = rgb2gray(me);
tmp = me_g;

for i=1:1:5
  window = (1/25)*ones(5,5);
  output = spatial_filter(tmp,window);
  tmp=output;
  subplot(1,5,i);
  imshow(uint8(output));
  title(['5x5  ',num2str(i),'th pass']);
end
```

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