```
Arch=cell(numel(net.Layers),5);
for i=[2 6 10]
    l=net.Layers(i);
    Arch{i,1}=1.Name;
    Arch{i,2}='Convolution2D';
    Arch{i,3}=1.NumFilters;
    Arch{i,4}=num2str(1.FilterSize);
    Arch{i,5}=numel(1.Weights)+numel(1.Bias);
end
for i=[3 7 11]
    l=net.Layers(i);
    Arch{i,1}=1.Name;
    Arch{i,2}='BatchNOrmalization';
end
for i=[4 8 12]
    l=net.Layers(i);
    Arch{i,1}=1.Name;
    Arch{i,2}='ReLU';
end
for i=[5 9]
    l=net.Layers(i);
    Arch{i,1}=1.Name;
    Arch{i,2}='MaxPooling';
end
l=net.Layers(14);
Arch{14,1}=1.Name;
Arch{14,2}='Softmax';
l=net.Layers(15);
Arch{15,1}=1.Name;
Arch{15,2}='ClassificationOutput';
l=net.Layers(1);
Arch{1,1}=1.Name;
Arch{1,2}='ImageInput';
l=net.Layers(13);
Arch{13,1}=1.Name;
Arch{13,2}='FullyConnected';
Arch{13,5}=numel(1.Weights)+numel(1.Bias);
table(Arch)
```

ans = 15×1 table

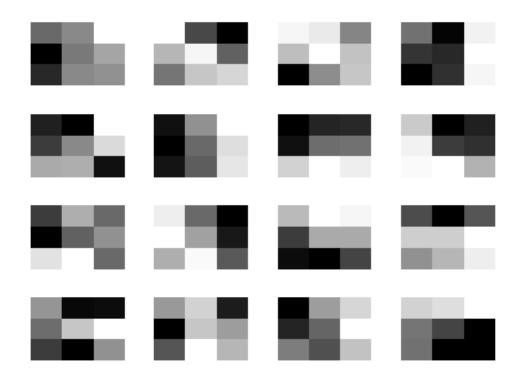
	Arch				
1	'imageinput'	'ImageInput'			0
2	'conv_1'	'Convoluti	16	'3 3'	160
3	'batchnor	'BatchNOr			0
4	'relu_1'	'ReLU'			0

5	'maxpool_1'	'MaxPooling'			
6	'conv_2'	'Convoluti	32	'3 3'	4640
7	'batchnor	'BatchNOr	0	0	0
8	'relu_2'	'ReLU'	0	0	0
9	'maxpool_2'	'MaxPooling'	0	0	0
10	'conv_3'	'Convoluti	64	'3 3'	18496
11	'batchnor	'BatchNOr	0	0	0
12	'relu_3'	'ReLU'	0	0	0
13	'fc'	'FullyConn	0	0	31370
14	'softmax'	'Softmax'	0	0	0
15	'classoutput'	'Classificat	0	0	

ii)

```
for i=[2 6 10]
    layer=net.Layers(i);
    W=layer.Weights;
    a=ceil(sqrt(size(W,3)*size(W,4)));
    figure
    l=1;
    for j=1:size(W,3)
        for k=1:size(W,4)
            subplot(a,a,l)
            imagesc(W(:,:,j,k))
            axis off
            colormap gray
            l=l+1;
        end
    end
    suptitle(['Layer Number ' num2str(i)])
end
```

Layer Number 2



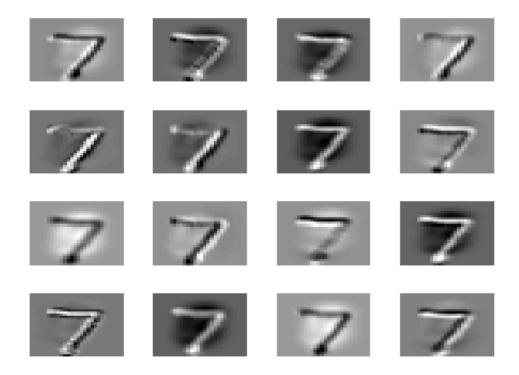
Layer Number 6

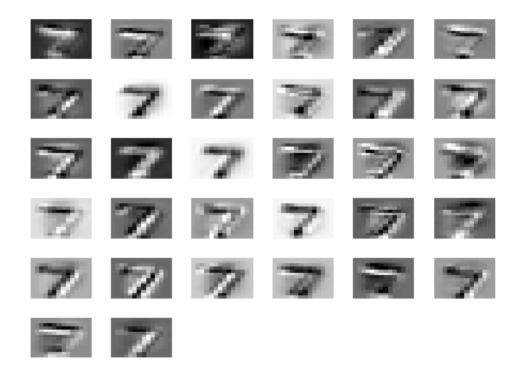
医多位氏疗法 医骶线 医双环状态 医毛线 医克里拉氏病 化自动电流 经保险证券 医克克氏性 医克里氏 医电流电影 医电流 医拉克氏氏 医拉拉曼尼斯 医斯拉曼氏病 医二氏病 医二氏病 医拉斯氏氏试验检试验检 医克拉斯氏试验检试验检验 化拉克曼克尼曼 医双环球虫 医多耳氏性肾炎 医多种毒素 医多种性抗性 医多种动物 医多种性原生的 医多种毒素的 医多克克氏试验医克氏试验检 医多多氏病 医多氏病 经 医乳腺经济性溶解 医医骨髓 医多克特氏病 医多氏氏管的 医克勒氏氏性皮肤性结肠炎 医克勒氏氏 医皮肤性毒素 医医克耳耳氏氏征氏征检检检检尿病性病性皮肤炎症 医格尔氏性医疗性医院性神经 医拉拉氏氏试验检尿病 医乳乳性皮肤 医甲基氏性动物 医多克克氏性动物 医克里曼氏囊性纤维性 医内耳氏性皮肤炎 医多种性坏疽性 医内侧线连续电影运送电影电影运用电影电影电影电影 化电影 医马克克氏征 医克里氏氏 医克里氏 医克里氏氏病 医多形皮肤 医多种性 医多种性 医多种性 医多种性 医多种性 医 经经营制度证

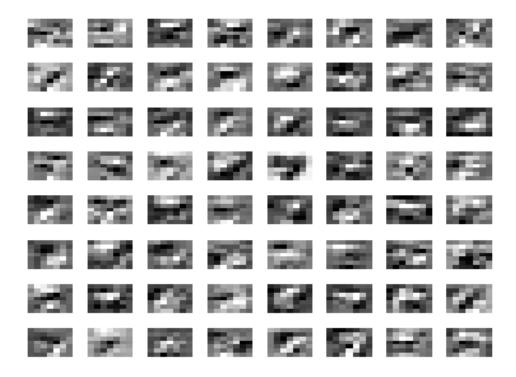
Layer Number 10

iii)

```
im=imgDataTest(:,:,1,1);
for i=[2 6 10]
    act=activations(net,im,Arch{i,1});
    a=ceil(sqrt(size(act,3)));
    figure
    for j=1:size(act,3)
        subplot(a,a,j)
        imagesc(act(:,:,j))
        axis off
        colormap gray
    end
    suptitle(['Results from Layer Number ' num2str(i)])
end
```





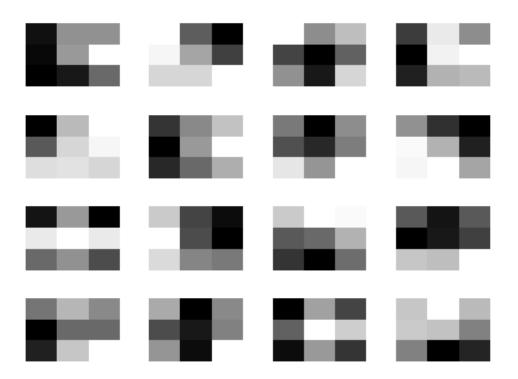


iv)

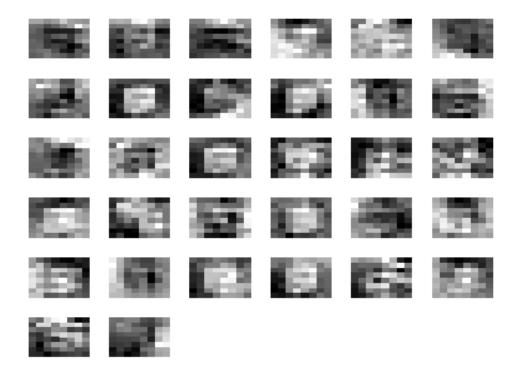
```
for i=[2 6 10]
  maxact=deepDreamImage(net,i,1:Arch{i,3},'PyramidLevels',1);
  a=ceil(sqrt(size(maxact,4)));
  figure
  for j=1:size(maxact,4)
      subplot(a,a,j)
      imagesc(maxact(:,:,1,j))
      axis off
      colormap gray
  end
  suptitle(['Results from Layer Number ' num2str(i)])
end
```

Iteration	Activation	Pyramid Level				
	Strength					
	=========	==========================				
1	0.73	1				
2	0.63	1				
3	1.99	1				
4	3.35	1				
5	4.71	1				
6	6.07	1				
7	7.43	1				
8	8.80	1				

ļ	9	10.16	1	L	
	10	11.52	1	1	
	=========	=========	============	==	l



Iteration 	Activation Strength	Pyramid Level
1	0.06	1
2	0.05	1
3	0.03	1
4	0.02	1
5	0.00	1
6	0.01	1
7	0.02	1
8	0.04	1
9	0.05	1
10	0.06	1
1		



	==	=========	==:	
Iteration		Activation Strength	 	Pyramid Level
========	==	=========	==:	====================
1		0.05		1
2		0.09		1
3		0.13		1
4		0.16		1
5		0.18		1
6		0.21		1
7		0.23		1
8		0.25		1
9		0.27		1
10		0.29		1
	==	=========	==:	

