









```
q5.m x +
1 -   clc
2 -   clear
3
4   %reading the image and converting to appropriate format for matlab
5 -   img = imread('img1.jpg');
6 -   bw = im2bw(img);
7 -   [r,c] = size(bw);
8
9   %getting the coordinates
10 -  disp('enter your pixel coordinates:');
11 -  x=input('x: ');
12 -  y=input('y: ');
13 -  while x>r || y>c || x<0 || y<0
14 -      disp('out of range! enter again:');
15 -      x=input('x: ');
16 -      y=input('y: ');
17 -  end
18
19 -  list=[x,y];
20
21 -  while ~isempty(list)
22 -      cur = list(1,:);
23 -      list(1,:)=[];
24 -      if bw(cur(1),cur(2))==1
25 -          bw(cur(1),cur(2))=0;
26 -          if cur(1)-1 > 0 & bw(cur(1)-1,cur(2))==1
27 -              list=[list;[cur(1)-1,cur(2)]];
28 -          end
29 -          if cur(1) < r & bw(cur(1)+1,cur(2))==1
30 -              list=[list;[cur(1)+1,cur(2)]];
31 -          end
32 -          if cur(2)-1 > 0 & bw(cur(1),cur(2)-1)==1
33 -              list=[list;[cur(1),cur(2)-1]];
34 -          end
```

```
35 -         if cur(2) < c & bw(cur(1), cur(2)+1) == 1
36 -             list = [list; [cur(1), cur(2)+1]];
37 -         end
38 -     end
39 - end
40
41 - figure
42 - imshowpair(img, bw, 'montage')
43
```

Workspace



Name ▲	Value	
 bw	<i>234x215 logical</i>	
 c	215	
 cur	[1,117]	
 img	<i>234x215x3 uint8</i>	
 list	[]	
 r	234	
 x	1	
 y	117	