DIP ASSIGNMENT

NAME: Muhammad Ahtesham Sarwar

AG#: 2019-AG-6068

CLASS: BSCS 6th

SUBJECT: Digital Image Processing

DATE: 19 May, 2022

CODE:

Editor - Untitled2*

Untitled2*

```
original = imread('cameraman.tif');
imshow(original)
text(size(original,2),size(original,1)+15, ...
    'Image courtesy of Massachusetts Institute of Technology', ...
    'FontSize',7,'HorizontalAlignment','right')
scale = 0.7;
distorted = imresize(original,scale); % Try varying the scale factor.
theta = 30;
distorted = imrotate(distorted,theta); % Try varying the angle, theta.
imshow(distorted)
movingPoints = [151.52  164.79; 131.40 79.04];
fixedPoints = [135.26  200.15; 170.30 79.30];
tform = fitgeotrans(movingPoints,fixedPoints,'nonreflectivesimilarity');
tformInv = invert(tform);
Tinv = tformInv.T;
ss = Tinv(2,1);
sc = Tinv(1,1);
scale_recovered = sqrt(ss*ss + sc*sc)
theta_recovered = atan2(ss,sc)*180/pi
Roriginal = imref2d(size(original));
recovered = imwarp(distorted,tform,'OutputView',Roriginal);
montage({original,recovered})
```

OUTPUT: