**University of the Punjab**

**Gujranwala Campus**

**Department of Information Technology**



**Assignment: Computer Vision**

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**Feature Extraction:**

**Boundary Detection:**

**Region Properties:**

**Code:**

% Read the image

I = imread('coins.png');

% Convert to binary

Ibw = im2bw(I);

% Fill holes in detected objects

Ibw = imfill(Ibw, 'holes');

% Label all connected objects

Ilabel = bwlabel(Ibw);

% Compute centroids of labeled regions

stat = regionprops(Ilabel, 'centroid');

% Display the original image

imshow(I);

hold on;

% Overlay red circles at centroids

for x = 1:numel(stat)

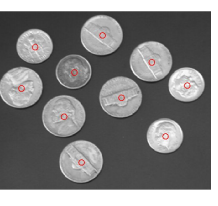
plot(stat(x).Centroid(1), stat(x).Centroid(2), 'ro');

end

hold off;

Ibw = imbinarize(rgb2gray(I));

**OUTPUT:**

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