**University of the Punjab**

**Gujranwala Campus**

**Department of Information Technology**



**Computer Vision**

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**Feature Extraction and Boundary Detection**

% Read the image

Coins = imread('coins.png');

% Convert the image to binary

CoinsBW = im2bw(Coins);

% Fill holes in the binary image

FilledCoinsBW = imfill(CoinsBW, 'holes');

% Extract boundaries of objects

boundaries = bwboundaries(FilledCoinsBW);

% Display the original image

imshow(Coins);

hold on;

% Plot the boundary of the 2nd object in red

plot(boundaries{2}(:,2), boundaries{2}(:,1), 'r', 'LineWidth', 2);

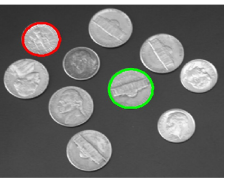
% Plot the boundary of the 7th object in green

plot(boundaries{7}(:,2), boundaries{7}(:,1), 'g', 'LineWidth', 2);

hold off;

CoinsBW = imbinarize(rgb2gray(Coins));

**OUTPUT:**

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