University of the Punjab

Gujranwala Campus

Department of Information Technology

Assignment: Computer Vision

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Feature Extraction:

Boundary Detection:

Code:

```
% 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: