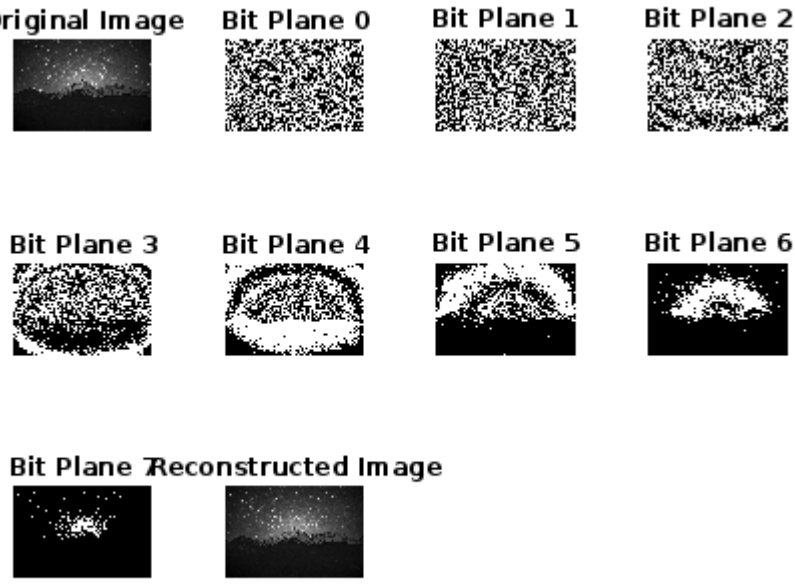
```
% Created By Vipul Pawar
% Load an image from a specified URL (replace with the desired image URL)
url = 'https://images.unsplash.com/photo-1736077722346-31ba59414728?
q=80&w=2940&auto=format&fit=crop&ixlib=rb-4.0.3&ixid=M3wxMjA3fDB8MHxwaG90by1wY
WdlfHx8fGVufDB8fHx8fA%3D%3D';

% Read the image from the internet
img = imread(url);

% Convert the image to grayscale if it is RGB
if size(img, 3) == 3
    img = rgb2gray(img);
end

% Get the dimensions of the image
[rows, cols] = size(img);

% Initialize a blank image for reconstruction
reconstructed_img = zeros(rows, cols, 'uint8');

% Create a figure window to display results
figure;

% Display the original grayscale image
subplot(3, 4, 1);
imshow(img);
title('Original Image');

% Loop through each bit plane (0 to 7) for slicing and reconstruction
for k = 0:7
    % Extract the k-th bit plane
    bit_plane = bitget(img, k + 1);

    % Scale the bit plane to full intensity for better visualization
    bit_plane_image = uint8(bit_plane * 255);

    % Add the weighted contribution of the bit plane to reconstruct the image
    reconstructed_img = reconstructed_img + uint8(bit_plane * 2^k);

    % Display the k-th bit plane
    subplot(3, 4, k + 2);
    imshow(bit_plane_image);
    title(['Bit Plane ', num2str(k)]);
end

% Display the reconstructed image from all bit planes
subplot(3, 4, 10);
imshow(reconstructed_img);
title('Reconstructed Image');

% Add an overall title to the figure
sgtitle('Original Image, Bit Planes, and Reconstructed Image');
```

Original Image, Bit Planes, and Reconstructed Image



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