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prompt="what is the plain text";
text=input(prompt);
num_rails=input("Number of rails");
encrypt_rail_fence_cipher(text,num_rails);

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function ciphertext = encrypt_rail_fence_cipher(text, num_rails)
    if num_rails == 1
        ciphertext = text;
        return;
    else
        rail = cell(1, num_rails);
        for i = 1:num_rails
            rail{i} = '';
        end

        % Variables to track the current position and direction
        row = 1;
        direction_down = false;

        % Traverse the text and write characters to the appropriate rail
        for i = 1:length(text)
            rail{row} = [rail{row}, text(i)];
            if row == 1 || row == num_rails
                direction_down = ~direction_down;
            end
            if direction_down
                row = row + 1;
            else
                row = row - 1;
            end
        end

        % Combine all rails to form the ciphertext
        ciphertext = '';
        for i = 1:num_rails
            disp(rail{i});
            ciphertext = [ciphertext, rail{i}];
        end
        disp("");
        disp(ciphertext);
    end
end

%Inputted String here - Hello World
%Number of rails - 4

```