```
function optimization_output(x,num_styles,operative_values, include_monostatic,
loop_gain_desired,min_t_styles,min_r_styles,min_quantity,max_quantity,min_diameter,
max_diameter,min_power,max_power,year_built,k,nu,max_antennas)

    function disp_table = create_table(x,num_styles,operative_values,
include_monostatic)
        % Number of Parameters (type, quantity, diameter, power)
        num_parameters = 4;

        % Create the Column Names
        col_names = [];
        for i = 1:num_styles
            col_names = [col_names,"Type "+i,"Quantity "+i, "Diameter "+i+ " (m)","
Power "+i + " (W)"];
        end

        col_names = [col_names,"Cost ($M)","Gain (dB,dBW)"];

        % Add the cost and gain objective values to the x matrix
        x(:,(num_parameters*num_styles+1):(num_parameters*num_styles+2)) =
operative_values;
        x(:,(num_parameters*num_styles+2)) = -x(:,(num_parameters*num_styles+2));


        % create a table using the x matrix and column names
        table = array2table(x,'VariableNames',col_names);

        % sort the table based on the gain column
        table = sortrows(table,'Gain (dB,dBW)');

        % change cost column to be in millions
        table.("Cost ($M)") = round(table.("Cost ($M)")/ 1e6, 3);

        % dynamically adjust values in the table
        for i = 1:(num_styles)

            % change type columns to have have 0, 1 or 2 values (instead of float)
            if strcmp(include_monostatic,"T")
                % Transmitters - 0
                % Monostatic - 1
                % Receivers - 2
                table.(num_parameters*i-3) = floor(table.(num_parameters*i-3));  %
Type
            else
                % Transmitter < 1.5
                % Reciever >= 1.5
                %Logical indexing to change values
                table.(num_parameters*i-3)(table.(num_parameters*i-3) >= 1.5) = 2;
% if greater than or equal to 1.5 it is a reciever
                table.(num_parameters*i-3)(table.(num_parameters*i-3) < 1.5) = 0;  %
if less than 1.5 it is considered a transmitter
            end % end if/else strcmp

            % change quantity columns to integer (instead of float)
```