close all; clearvars; clc

## CONVERSION OF CHAR MESSAGE INTO BIT STREAM AND BACK (v.1)

```
bin2char less performing (for-loop needed)
```

```
in_msg = 'ciao'
binary = reshape(dec2bin(in_msg, 8).'-'0',1,[])
str = char(bin2dec(reshape(char(binary+'0'), 8,[]).'));
out_msg = str(1);
for j=2:length(str)
   out_msg = strcat(out_msg ,str(j));
end
out_msg
fprintf(" ----\n");
in_msg =
   'ciao'
binary =
 Columns 1 through 13
               1 0
                          0 0 1
                                                       1 1
 Columns 14 through 26
 Columns 27 through 32
                  1
                           1
out_msg =
   'ciao'
```

## CONVERSION OF CHAR MESSAGE INTO BIT STREAM AND BACK (v.2)

bin2char more performing (no for-loop needed)

```
in_msg = 'vkn rules!'
```

```
binary = reshape(dec2bin(in_msg, 8).'-'0',1,[])
str = char(bin2dec(reshape(char(binary+'0'), 8,[]).'))'
in_msg =
  'vkn rules!'
binary =
 Columns 1 through 13
  0 1 1 1 0 1 1 0
                                    0 1 1 0 1
 Columns 14 through 26
  0 1 1 0
                  1 1 0
                                1
                                     1
                                         1
 Columns 27 through 39
  1 0 0 0
                    0
                       0
                           0
                                1
                                    1
                                         1
 Columns 40 through 52
   0 0 1 1
                    1 0
                            1
                                 0
                                     1
                                         0
 Columns 53 through 65
  1 1 0 0
                       1 1
                                     0
                                         1
                   0
                                0
                                                      0
 Columns 66 through 78
  1 1 1 0 0 1 1 0
                                     0
                                         1
                                            0
                                                      0
 Columns 79 through 80
  0 1
str =
  'vkn rules!'
```

Published with MATLAB® R2022a