```matlab
clc
clear all
close all

% Coversion of Decimal to Binary
% 2017KUCP1016
% Name Apurv Jain
% n = input('Enter a number: ');
n = 10;
num = n;
if (n==0)
    bits=1;
else
    bits = log2(n);
     if (rem(bits,1)==0)
        bits = ceil(bits) +1;
     else
        bits = ceil(bits);
     end
end
display ('Bits Required ');
display (bits);

bin = zeros(1,bits);
for i = bits:-1:1
    bin(i) = rem(n,2);
    n = floor(n/2);
end
display ('Binary Equivalent of ');
display (num);
display (' is ');
display (bin);
```

Bits Required

bits =

    4

Binary Equivalent of

num =

   10

 is

bin =

    1   0   1   0

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