1. Let n be a decimal number and C be a string that denotes the binary representation of n.
(a) Draw a while-loop to determine C for given n.
(b) Write a MATLAB function to implement your flow chart.
(c) Test your MATLAB function with n = 5, C ='101' and n = 25,C ='11001', n=9957, C=?

2. Let n be a decimal number and C be a string that denotes the octal representation of n.
(a) Draw a while-loop flow chart to determine C for given n.
(b) Write a MATLAB function to implement your flow chart.
(c) Test your MATLAB function with n = 15, C ='17' and n = 85,C ='125', n=9957, C=?

3. Let x be an array of sorted positive integers.
a. Draw a while-loop flow chart to implement binary search.
b. Write a matlab function to implement your flow chart.
c. Give an example to test your program.