

## Assignment -2

- 1) Write a program to reverse a number without using inbuilt functions
- 2) Write a program to reverse a string without using inbuilt functions
- 3) Determine time and space complexity of linear search and binary search
- 4) Determine time & space complexity of merge sort and bubble sort
- 5) Find time complexity of binary search in 3 cases
- 6) Program no.11-20 from the below link  
<https://www.programiz.com/c-programming/examples>
- 7) Leetcode problem:  
//Valid Parentheses: Given a string s containing just the characters '(', ')', '{', '}', '[' and ']', determine if the input string is valid.

An input string is valid if:

Open brackets must be closed by the same type of brackets.

Open brackets must be closed in the correct order.

Every close bracket has a corresponding open bracket of the same type.

Example 1:

Input: s = "()"

Output: true

Example 2:

Input: s = "()[]{}"

Output: true

Example 3:

Input: s = "]"

Output: false

Constraints:

1 <= s.length <= 104

s consists of parentheses only '()[]{}'.