

**Sardar Vallabhbhai Patel National Institute of Technology, SVNIT, Surat**  
**B.Tech I Sem II (Sem-4)**  
**Data Structure (CS102)**  
**LAB Assignment 4**

Goal:

- To understand the queue and Stack data structure with its operations.
  - To write the reusable functions for later usage in this subject.
- 
1. Design, Develop and Implement a Program in C for converting an Infix Expression to Postfix Expression.
  2. Write a program to implement a Queue data structure using two Stacks.
  3. Design, Develop and Implement a Program in C for Tower of Hanoi.
  4. Consider a scenario of a bank. When the customer visits the counter, a request entry is made and the customer is given a request number. After receiving request numbers, a customer has to wait for some time. The customer requests need to be queued into the system and processed on the basis of their arrival. You need to implement an appropriate data storage mechanism to store these requests in the system and display after completing the customer task on the request.