**Assignment-2**

**Write the algorithms and give examples.**

1. Palindrome checking by a Stack of Array, Singly and doubly linked list of stacks.
2. Checking single type of parenthesis by using stack.

For example:

((())) - Balanced

((()) - Unbalanced

(())) - Unbalanced

1. Checking multiple type of parenthesis by using stack.

[{()}] - Balanced

({}) - Unbalanced

{([])} - Unbalanced

1. Convert infix expression to postfix expression by using stack.
2. Evaluate the postfix expression by using stack.
3. Pizza Hutt accepting maximum M orders. Orders are served in first come first served basis. Order once placed cannot be cancelled. Write C++ program to simulate the system using circular queue by array
4. Pizza Hutt changes its policy and adds some constraint in their policy. The

changed policy is based on customer age and now the elder customer will be served earlier and for equal age FIFO will be applicable.

1. Pizza Hutt management decides to have two serving units with following

constraints:

* 1. There will be only one row for waiting customers.
  2. Customer can come either on front of the row or at rear but not at middle.
  3. Customers can be served either by front counter or rear.