**Data Structures, 2016**

**Lab Assignment #1**

1. A database of employees in an organization is specified by the records of employees. The record of an employee consists of following fields: employee id, employee name, employee designation, employee salary. Create an ADT *EMP\_DATABASE* which can store the records of employees working in an organization. This ADT is specified by the following operations:

* Add the record of a new employee at the end of database.
* Add the record of a new employee at the beginning of database.
* Add the record of a new employee at nth position in the database.
* Print the records of all employees.
* Delete a specific record from the database.
* Search the record of a specific employee.
* Count the number of employees.
* Reverse the order of employees inserted in database.

Implement this ADT using the data structure “linked list”. Define each and every operation/function in 3 ways:

1. When head pointer is declared as a global variable.
2. When head pointer is declared as local variable and passed by value.
3. When head pointer is declared as local variable and passed by reference.