**SSN College of Engineering, Kalavakkam**

**Department of Computer Science and Engineering**

**III Semester - CSE**

# UCS 1312 Data Structures Lab Laboratory

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| **Academic Year: 2019-2020** | **Batch: 2018-2022** |

**Exercise 1: Student Information System using Array Implementation of list ADT**

Create a StudentADT with the following fields

Set of students where each student contains Regno. Name, Mark1, Mark2,Mark3,

Total, Result

StudentList ADT has the implementations for the following operations

1. Insert a record in the front of the list

void insertFront(listADT l,student s)

1. Insert a record at the end of the list

void insertEnd(listADT l,student s)

1. Insert a record after a given Regno in the list

void insertRegNo(listADT l, student s, int regNum)

1. Insert a record after a given Regno in the list

student searchRegNo(listADT l, int regNum)

1. List the records of students based on his register number

student\* searchName(listADT l, char name[])

1. Delete a given student record given his register number and display all the details

void delete(listADT l, int regNum)

1. Calculate the Total and update the Result field

void computeResult(listADT l)

1. List the students who have passed

student\* listResult(listADT l)

1. List the students how many have secured FirstClass

int listClass(listADT l)

In order ro implement this Student Information System,

* It is necessary to create a file that has StudentList ADT and implementation of above-mentioned functions
* Another file will be created with only function prototypes
* One more file will be created to write the Student Information System using the StudentList ADT

**Note: Submit the code along with the output within the deadline**