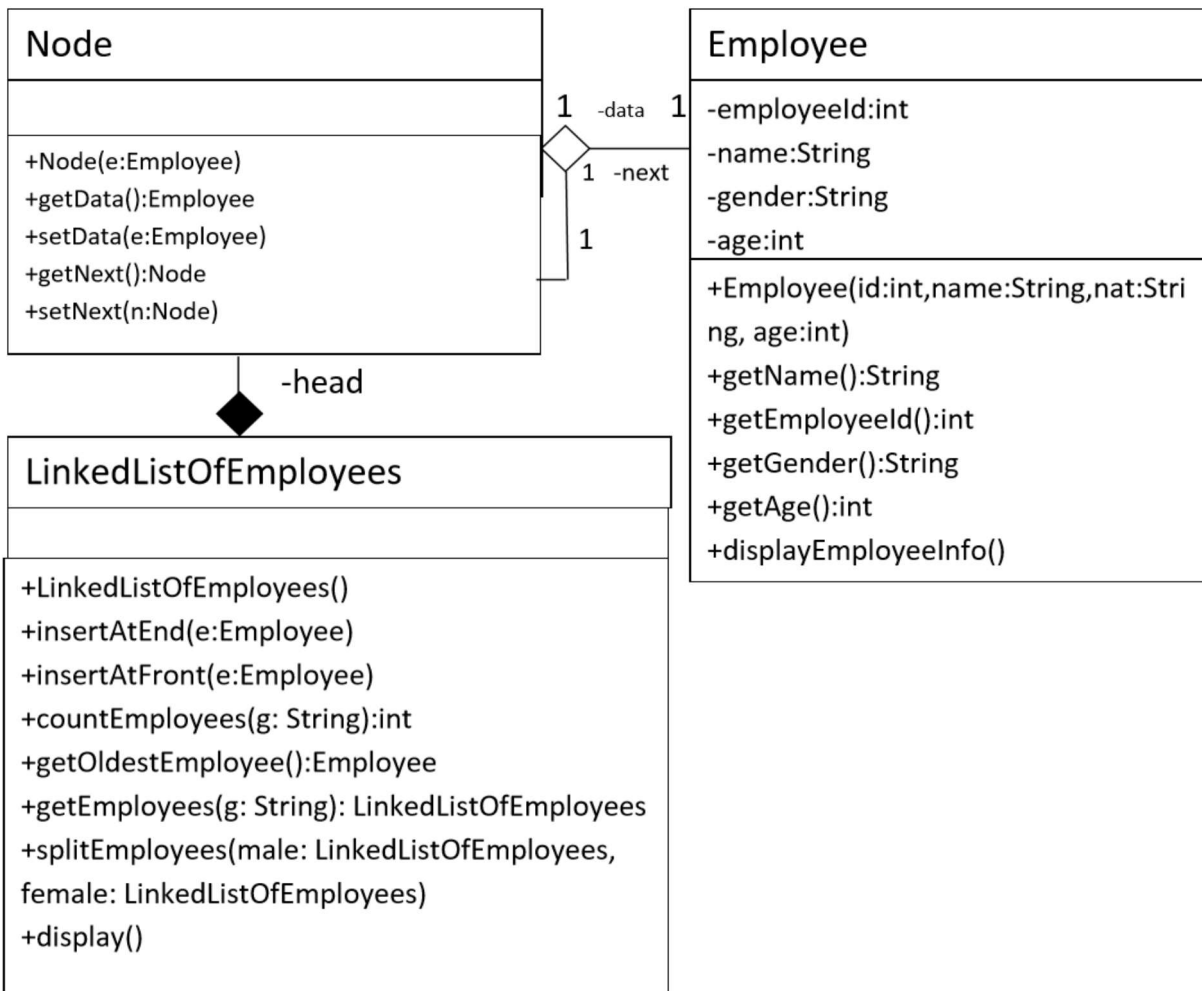


# Lab: Linked List

## CSC 113

Create the classes along with the functionality given in the following UML Diagram. To understand the problem, please refer to the description given after the diagram.



Employee Class:

- Attributes:
  - employeeId: unique id of the employee.
  - name: the name of the employee.
  - gender: The gender of the employee.

- Age: The age of the employee
- Methods:
  - Employee(id:int,name: string, gender: String, age: int): constructor
  - displayEmployeeinfo(): this method displays all the attributes of the employee.
  - Getters

#### Node Class:

- Attributes:
- Methods:
  - Node(e: Employee): constructor
  - Getters/Setters

#### LinkedListOfEmployees Class:

- Attributes:
  -
- Methods:
  - LinkedListOfEmployees: constructor
  - insertAtFront(g:Employee): this method inserts an employee at the front of linked list.
  - insertAtEnd(g:Employee): this method inserts an employee at the end of linked list.
  - countEmployee(g:String): this method returns the number of employees who are of gender g.
  - getOldestEmployee(): this method returns the oldest employee.
  - getEmployees(g:String): this method returns a linked list of all employees who are of gender g.
  - splitEmployees(male: LinkedListOfEmployees, female: LinkedListOfEmployees): This method inserts all Male employees linked list male and Female in to female linked list.

- display(): displays the data of each employee in the linked list

Write a java program that will display following Menu to execute different member functions of these classes.

To add a new employee, Enter 1

To get the number of employees of a given gender, Enter 2

To get and display the oldest employee, Enter 3

To get and display all employees of a given gender, enter 4

To view all Male employees in the Linked List, Enter 5

To Exit, Enter 0

Enter Your Option: \_\_\_\_\_