EHB 208E - Data Structures & Programming
Homework-1

Assignment Date : 19.03.2021 Due Date : 26.03.2021 at 18:00

Write a C program (not C++) to do the followings.

- Define a **node structure** that contains an integer data and the next node pointer.
- Ask user to enter the total count of nodes (N) in the **Linked List**.
- In a loop, dynamically allocate N nodes one-by-one and add them to the Linked List (unordered) with the rules below:
    - The value of a node's data should be **randomly** assigned between 0 and 100.
      (Use the built-in C functions **srand** and **rand**).
    - If the data is **ODD**, then the node should be added to the **beginning** of the linked list.
      Otherwise it should be added to the **end** of the linked list.
- Program should display the counts of ODD and EVEN numbers.
- By looping, program should also display the Linked List as shown below.

EXAMPLE SCREEN OUTPUT

```
Enter total count of nodes in Linked List : 20

Count of ODD numbers : 8
Count of EVEN numbers : 12

LINKED LIST :
ODD PART: 37  93  87  91  57  67  41  19   EVEN PART: 14  10  56  8  60  16  18  42  38  64  6  60
```