

Brac University (Department of Computer Science and Engineering)

CSE220: Data Structure

Lab Midterm Examination (CO3)

Summer 2023

Section: 28

Time: 30 Min

[Total Marks: 05]

You are given two singly non-dummy headed linked lists. Your task is to write a function **alternate_merge(head1, head2)** that takes the heads of the two linked lists and returns the head of a modified linked list with all the elements of the two lists in alternate order. It is guaranteed that alternate placement is always possible. Your resulting linked list will always start with the head of linked list 1.

Bonus : If any of the list contains repeated elements, they should appear only once in the new list

Input	Output
List1: 1 → 2 → 6 → 8 → 11 → None List2: 5 → 7 → 3 → 9 → 4 → None	1 → 5 → 2 → 7 → 6 → 3 → 8 → 9 → 11 → 4 → None
List1: 5 → 3 → 2 → -4 → None List2: -4 → -6 → 1 → None	5 → -4 → 3 → -6 → 2 → 1 → -4 → None
List1: 4 → 2 → -2 → -4 → None List2: 8 → 6 → 5 → -3 → None	4 → 8 → 2 → 6 → -2 → 5 → -4 → -3 → None
Bonus List1: 4 → 4 → 4 → 4 → None List2: 3 → 3 → 3 → None	4 → 3 → None
Bonus List1: 4 → 4 → 4 → 4 → None List2: 4 → 4 → 4 → None	4 → None

1. Write the method **create_list(array)** [2]
2. Write method **alternate_merge(head1, head2)** [3]

Colab file : [CSE220_Sec28_LabMid](#)