

CSCI 204: Data Structures & Algorithms

Exam 1 Review

Let's work in groups

- Each group solves one problem (20~ minutes), then the group answers questions from other groups about their solution.
- A set of initial code is given at the course website for each of the problems, e.g. node definition, list definition, etc.
- Send me an email of your group's solution by **the end of the class**. I will share mine with the class later today.

Problems

1. Write a Python function that can remove all nodes with data value in a specific range in a singly linked list **in one traversal**.
2. Write a Python function that can count the number of nodes in a circular linked list with a specific data value.
3. Write an operator overloading function `__sub__` that removes a node with specified value in a singly linked list.
4. Write a recursive function to compute the length of a doubly linked list.
5. Write a child class Car with a constructor, string function, length function that inherits information from a parent class Vehicle.