

Lab 1

You are fine to work together with others for this lab. The tasks to complete are numbered below.

- 1) Write a function designed using recursion that takes an input list L and creates a new list with all the elements of the input list L having no duplicate elements. This function then creates sets for you in terms of mathematics.
- 2) Write a function that uses your function from Task 1 and performs set union on two input lists. the input lists should not need to be sets themselves.
- 3) Write a function that performs set subtraction on two input lists.
- 4) Write a function that performs set intersection on two input lists.
- 5) Write a function that performs set difference (or symmetric difference) on two input lists.

This lab is out of 5 marks, with one mark per numbered task. Submit a `lab1.hs` file to Blackboard in the Assignments and Tests section under Lab 1 submission by the end of the class.