**Assignments, W1D2**

Algorithmic Coding:

Problem 1: <https://leetcode.com/problems/search-in-a-binary-search-tree/> - Recursion, BST

Problem 2: <https://leetcode.com/problems/pascals-triangle-ii/> - Arrays, DP

Problem 3: <https://leetcode.com/problems/climbing-stairs/> - Recursion, DP

Object Oriented Programming:

Problem 1: Expanding the Restaurant Class

Start with your program from yesterday. Add an attribute called number\_served with a default value of 0. Create an instance called restaurant from this class. Print the number of customers the restaurant has served, and then change this value and print it again.

Add a method called set\_number\_served() that lets you set the number of customers that have been served. Call this method with a new number and print the value again.

Add a method called increment\_number\_served() that lets you increment the number of customers who’ve been served. Call this method with any number you like that could represent how many customers were served in, say, a day of business.

Problem 2: Login Attempts for Users

Add an attribute called login\_attempts to your User class from yesterday’s Problem 3 . Write a method called increment\_login\_attempts() that increments the value of login\_attempts by 1. Write another method called reset\_login\_attempts() that resets the value of login\_attempts to 0.

Make an instance of the User class and call increment\_login\_attempts() several times. Print the value of login\_attempts to make sure it was incremented properly, and then call reset\_login\_attempts(). Print login\_attempts again to make sure it was reset to 0.