ESO207 Programming Assignment 1

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1 Problem Statements

2 Programming Problem 1

2.1 Problem Description

We are required to add the polynomials according to the given input where we are first given two integers n and m which are followed by 2n and 2m integers in the next two lines. The main complexities and boundary cases in the problem were to design a O(m+n) algorithm and to recognize that zero polynomials are the exceptional cases which do not directly fit into the algorithm and so are to be specifically handled. To take care of integer overflow we by default use big integers as our storage containers.

2.2 Algorithm Explanation

The algorithm is quite simple. We just take two temprorary node pointers which will correspond to the current term of that particular polynomial in the addition process. There are 3 major cases as follows -

- 1st polynomial already traversed
- 2nd polynomail already traversed
- Both polynomials are being traversed
- Hey
- Oh!
- Let's
- Go!

3 Programming Problem 2

- Okay