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Project 1

Assumptions

1. User will give valid input on the main menu. This consists of only integers.
2. User will give valid input on entering a polynomial.   
   This consists of only the set: {1, 2, 3, 4, 5, 6, 7, 8, 9, 0, +, -, x, ^}
3. User will only enter “x” no other variables.

Our main assumption is that the user will only give valid input. If there are any characters not in this set: {1, 2, 3, 4, 5, 6, 7, 8, 9, 0, +, -, x, ^}, the program may crash. This is also true for the main menu, where only an integer input is expect.

UML Diagram

|  |
| --- |
| Term |
| * Exponent: int * Coefficient: int |
| + Operator<(rhs: const Term&): bool  + Operator=(rhs: const Term&): bool  + Print (first: bool): void |

\*

|  |
| --- |
| List <Term> |

Algorithm Efficiency

* constuctPoly = O(n)
* sumFun = O(n^2)
* printPoly = O(n)
* cleanPoly = O(n)
* checkDupPoly = O(n^2)