Trent University
COIS 2020

Test Case for Assignment 1

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Version 1.0

Teammates

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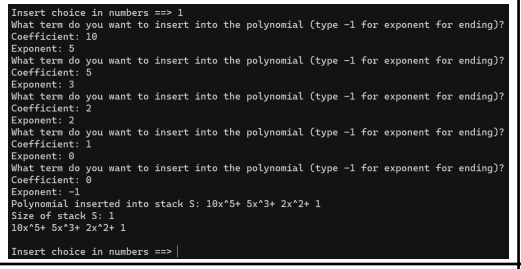
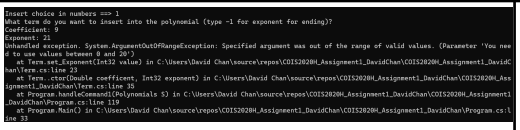
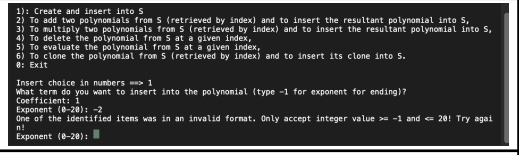
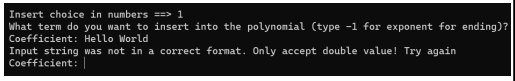
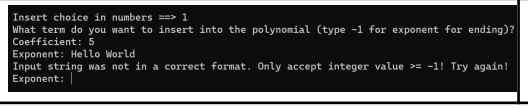
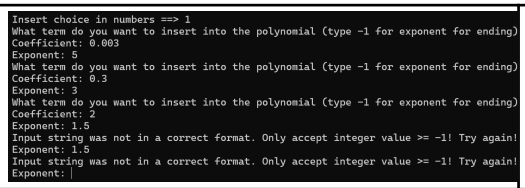
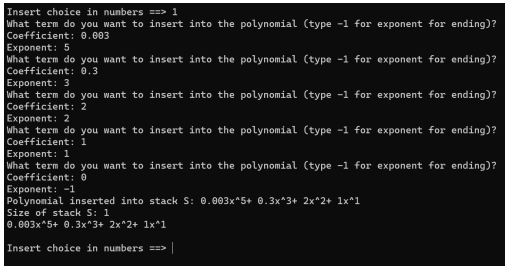
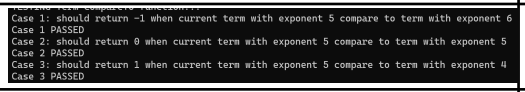
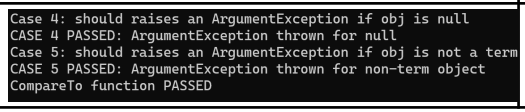
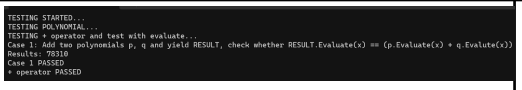
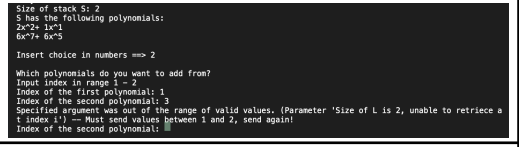
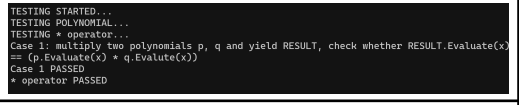
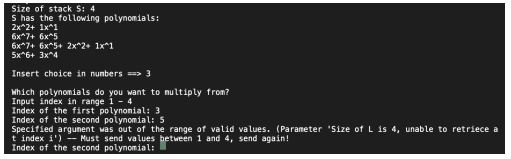
1. Purpose

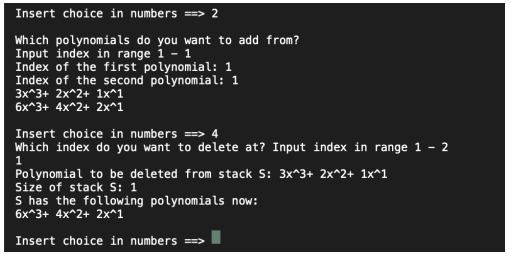
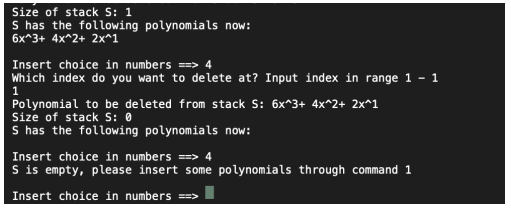
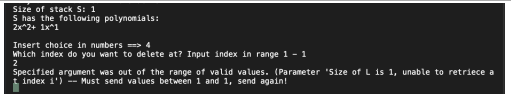
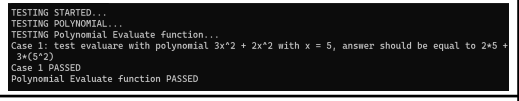
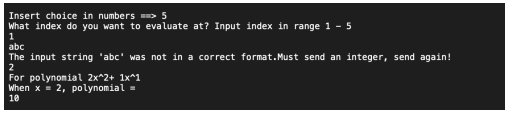
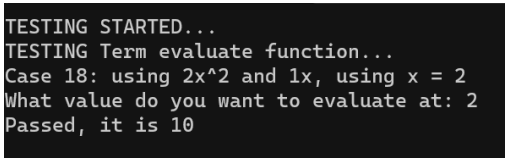
The purpose of the document is to provide the test plan after completing tasks 1-6 of assignment 1. The objective of the document is to ensure those test cases can intensively test the program working properly.

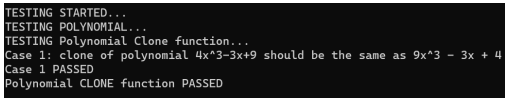
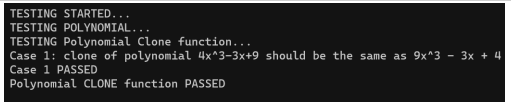
Tasks

Test Case nunber	Task reference	Test to be performed	Expected Result	Actual result	Pass/ Fail
1	Task 1	Implement public read and write properties for each data member (type -1 for exponent ending) Input 10x^5+5x^3+2x^2+1	Can read and write on the console 10x^5+5x^3+2x^2+1		Pass/ ~~Fail~~
2.1	Task 1	Test if exponent is Out Of Range (if exponent is greater than 20) for example, 9x^21+2	Argument Out Of Range Exception		Pass/ ~~Fail~~
2.2	Task 1	Test if exponent is Out Of Range (if exponent is less than 0) for example, 9x^-2+2	FormatException		Pass/ ~~Fail~~
3	Task 1	Test if random character is input for example, Hello World for coefficient	FormatException		Pass/ ~~Fail~~
4	Task 1	Test if random character is input for example, Hello World for exponent	FormatException		Pass/ ~~Fail~~

5	Task 1	Test if exponent is decimal For example: 0.003x^5+0.3x^3+2x^1.5+1	FormatException		Pass/ ~~Fail~~
6	Task 1	Test if coefficient is decimal For example: 0.003x^5+0.3x^3+2x^2+1	Produces 0.003x^5+0.3x^3+2x^2+1 from example		Pass/ ~~Fail~~
7	Task 1	Returns -1, 0, or 1 if the exponent of the current term	Returns -1, 0, or 1		Pass/ ~~Fail~~
8	Task 1	if obj is either null or not a term	ArgumentException		Pass/ ~~Fail~~

9	Task 2	Inserts term t into the current polynomial in its proper order. For example: (p)= 3x^2+2 Add a term 2x^2	If a term with the same exponent already exists then the two terms are added together After the team added to (p) , the result will be 5x^2+2		Pass/ ~~Fail~~
10	Task 2	Adds polynomials p and q For example: (p)= 3x^2+2 (q) = 6x^2+2^x +1	Adds polynomials p and q to yield a new polynomial output (p) + (q)= 9x^2+2^2+3		Pass/ ~~Fail~~
11	Task 2	Adds polynomials from index that doesn't exist	Argument Out Of Range Exception		Pass/ ~~Fail~~
12	Task 3	Multiplies polynomials p and q	Multiplies polynomials p and q to yield a new polynomial		Pass/ ~~Fail~~
13	Task 3	Multiplies polynomials from an index that doesn't exist	Argument Out Of Range Exception		Pass/ ~~Fail~~

14	Task 4	Deletes the polynomial at a given index	Deletes the selected polynomial		Pass/ ~~Fail~~
15	Task 4	Delete a polynomial when the stack is empty	Error message: “Stack is empty”		Pass/ ~~Fail~~
16	Task 4	Delete a polynomial from invalid index	Argument Out Of Range Exception		Pass/ ~~Fail~~
17	Task 5	Evaluates the current polynomial at x	Evaluates the current polynomial at x and returns the result		Pass/ ~~Fail~~
18	Task 5	Evaluates a polynomial with invalid ‘x’ value	FormatException	 Extra: 	Pass/ ~~Fail~~

19	Task 6	Creates and returns a clone of the current polynomial except that the exponents Input 4x^3 – 3x + 9	current polynomial are assigned to the coefficients of the clone in reverse order Output: 9x^3 – 3x + 4		Pass/ ~~Fail~~
20	Task 3,4,5	Prints the current polynomial result of test case 20	9x^3 – 3x + 4		Pass/ ~~Fail~~