

# CSU33012 - Software Engineering - Assignment 1

- Infix validator and calculator written in **Haskell** using *Hunit*, *QuickCheck* for unit testing and github workflow actions.

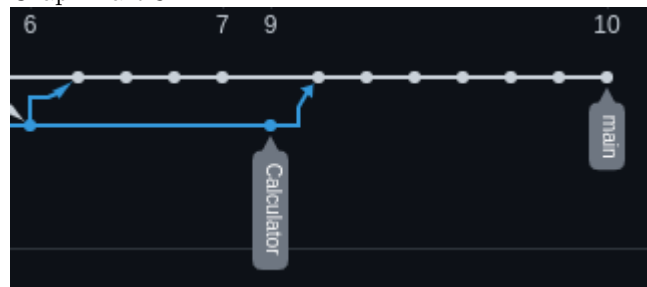
## Contributors & Contributions

- Alexander Sepelenco
  - Acted as github lead with organising, README, issues, pull requests, github workflow, and setting up Haskell with stack.
  - Set up Haskell unit testing: Hunit, and Quickcheck.
  - Set up github including github workflow with caching.
  - Implemented the following functions and their respective unit tests `isOperator`, `iOperand`, `operatorPrecedence`, `errorPrecedence`, `isOperatorLeftAssociative`, `errorLeftAssociativity`, `removeSpaces`, `splitToList`, `addZeroStringUnaryHeadPositiveOrNegative`, `combineUnaryOperators`, `removeUnaryHeadPositive`, `removePlusNum`, `combineNum`
  - Implemented the basic Input and Output when running programme.
  - Implemented Unary parsing, - and + and ensured it worked effectively with Niall's evaluator, and validators.
- Niall Sauvage
  - Implemented the following functions and their respective unit tests `infixValidator`, `popOperatorStackUpToParen`, `infixValidator'`, `countBrackets`, `infixToPostfix`, `popOperatorStack`, `getFirstElem`, `evaluatePostfix`, `evaluatePostfix'`, `evaluateExpression`.
  - Implemented parsing of inputted string into postfix once it has been split.
  - Implemented evaluation of resulting postfix strings into a single answer.
  - Worked on changes to Main.hs.

## Graph/commit logs

- Graph of commit logs

– Graph Part 3



– Graph Part 2



– Graph Part 1



• Main Branch

Commits on Oct 9, 2022		
Updated Readme	alexandersep committed 4 minutes ago ✓	Verified 769c777 <>
Final Solution to Assignment 1, Unary parsing fully completed	alexandersep committed 7 minutes ago ✓	d59853b <>
Refactored code partially, updated contribution	alexandersep committed 13 hours ago ✓	1e2c890 <>
Merge pull request #21 from alexandersep/Calculator	alexandersep committed 14 hours ago ✓	Verified 3c3c920 <>
Unary operators act as Operators and Unary operators (-, +), testing ...	alexandersep committed 14 hours ago ✓	1b9daf7 <>
Commits on Oct 7, 2022		
Added contributions to PDF	rs-savage committed 3 days ago ✓	237b0b1 <>
Commits on Oct 6, 2022		
Updated README to explain programme	alexandersep committed 3 days ago ✓	c0d3813 <>
My contribution to sweng	alexandersep committed 3 days ago ✓	83f0f36 <>
Merge pull request #20 from alexandersep/Calculator	alexandersep committed 3 days ago ✓	Verified 7db5346 <>
Merging conflict resolution workflows	alexandersep committed 3 days ago ✓	1d306aa <>

- Calculator-Branch

Commits on Oct 3, 2022

Refactored code for certain functions newly introduced by niall	2b35a88	<>
alexandersep committed 3 days ago ✓		
Reintroduced stack init for automatic building in github actions work...	848fceb	<>
alexandersep committed 3 days ago ✓		
Merge Niall's testing and and my testing for refactor and calculator	7136d16	<>
alexandersep committed 3 days ago ✗		
refactoring, and code coverage	97b2378	<>
alexandersep committed 3 days ago		
Merge branch 'Calculator' of github.com:alexandersep/CSU33012-SWENG-A...	5dfaf07	<>
ni-savage committed 3 days ago ✓		
Infix to Postfix converter created, helper functions created, unit te...	486wed8	<>
ni-savage committed 3 days ago		
Merge pull request #19 from alexandersep/Expression-Validation	8cb631b	<>
alexandersep committed 3 days ago ✓	Verified	
Remove unnecessary workflow github actions yml configurations	8899eb3	<>
alexandersep committed 3 days ago ✓		
Attempting to remove haskell useless installation	4561355	<>
alexandersep committed 3 days ago ✓		
Filler check of github actions workflow	5435da9	<>
alexandersep committed 3 days ago ✓		
haskell yml fully configured for cacheing	27a3d36	<>
alexandersep committed 3 days ago ✓		
Filler test, to see if cache works in actions github	c55571b	<>
alexandersep committed 3 days ago ✓		
actions workflow fixed keys	27e0bda	<>
alexandersep committed 3 days ago ✓		
Potential cache fix	9a449e7	<>
alexandersep committed 3 days ago ✓		
Added action github/workflow actions/cache	bf6624d	<>
alexandersep committed 3 days ago ✗		
Attempt at fixing caching	58bd996	<>
alexandersep committed 3 days ago		
Potential cache fix	88dc83f	<>
alexandersep committed 3 days ago		
remove variables from haskell.yml workflow	d728691	<>
alexandersep committed 3 days ago		
haskell ci/cd caching implementation potential fix	59ffc6f	<>
alexandersep committed 3 days ago		
Merge pull request #18 from alexandersep/Expression-Validation	d63bd44	<>
alexandersep committed 3 days ago ✓	Verified	

Commits on Oct 5, 2022		
Re-evaluated test case, fixed to be correct	859a2ef	<>
ni-savage committed yesterday ✓		
Hopefully final bugfix with popOperatorStack	edb256b	<>
ni-savage committed yesterday ✗		
Code miscellaneous regactoring part 2	6ae254d	<>
alexandersep committed 2 days ago ✓		
Code formatting mainly	814bf38	<>
alexandersep committed 2 days ago ✓		
Fixed 1 negative number before numbers to calculate expression, Refin...	15b2c31	<>
alexandersep committed 2 days ago ✓		
Added functionality to main, fixed bug in popOperatorStack, fixed inc...	393ffdf	<>
ni-savage committed 2 days ago ✓		
Commits on Oct 4, 2022		
Refactoring code	122d6f3	<>
alexandersep committed 2 days ago		
Fixed issue with popOperatorStack pop conditions	599f1f3	<>
ni-savage committed 2 days ago ✓		
Added evaluatePostfix, fixed typo in LibSpec, added evaluatePostfix, ...	0b27c42	<>
ni-savage committed 2 days ago ✓		
Added evaluatePostfix' function body, evaluatePostfix unit tests	c3ff7d7	<>
ni-savage committed 2 days ago ✗		
Added function body for evaluateExpression	72a68bf	<>
ni-savage committed 2 days ago ✓		
Added unit tests for evaluateExpression	7bcffbd	<>
ni-savage committed 2 days ago ✗		
Added function type definitions for evaluation	e7d3bf6	<>
ni-savage committed 2 days ago ✓		
Small refactoring changes, removed redundant brackets	ec2bdf8	<>
ni-savage committed 2 days ago ✓		
Fixed broken link	eb30f1c	<>
ni-savage committed 2 days ago ✓		

- Expression-Validation Branch

Commits on Oct 3, 2022		
Remove unnecessary workflow github actions yml configurations	8899eb3	<>
alexandersep committed 3 days ago ✓		
Attempting to remove haskell useless installation	4b61355	<>
alexandersep committed 3 days ago ✓		
Filler check of github actions workflow	5435da9	<>
alexandersep committed 3 days ago ✓		
haskell yml fully configured for caching	27a3d38	<>
alexandersep committed 3 days ago ✓		
actions workflow fixed keys	27e0bda	<>
alexandersep committed 3 days ago ✓		
Potential cache fix	9a440e7	<>
alexandersep committed 3 days ago ✓		
Added action githubworkflow actions/cache	bf6e24d	<>
alexandersep committed 3 days ago ✗		
Attempt at fixing caching	50bd906	<>
alexandersep committed 3 days ago		
Potential cache fix	99dc83f	<>
alexandersep committed 3 days ago		
remove variables from haskell.yml workflow	d728691	<>
alexandersep committed 3 days ago		
haskell ci/cd caching implementation potential fix	59ffcef	<>
alexandersep committed 3 days ago		
modified splitToList to split operands correctly for the use of infix...	5d083ee	<>
alexandersep committed 3 days ago ✓		
Cleaned up implementation of splitToString	fc90913	<>
alexandersep committed 3 days ago ✓		
push, pop (init), splitToList, removeSpaces functions added, removed ...	45aff2e	<>
alexandersep committed 3 days ago ✓		

Commits on Sep 27, 2022		
Edited test description for infix expression validator	alexandersep committed 9 days ago ✓	1d908c1
Infix validator initial commitment	alexandersep committed 9 days ago ✓	4b0b7e2
Merge pull request #12 from alexandersep/Calculator	alexandersep committed 9 days ago ✗	2d421dd
Merge branch 'Expression-Validation' into Calculator	alexandersep committed 9 days ago ✗	04f676e
IsOperand Fixed	alexandersep committed 9 days ago	4ab0950
Fixed Typo in unit test	ni-sauvage committed 9 days ago	f2b7fbd
Implemented Tests, fixed bugs in validator	ni-sauvage committed 9 days ago	b5e40b2
Merge pull request #10 from alexandersep/Workflow-Testing	alexandersep committed 9 days ago ✓	a3c7720
haskell.yml	alexandersep committed 9 days ago ✓	35e1271
Added infix validation	ni-sauvage committed 9 days ago	3a149e4
Commits on Sep 26, 2022		
Merge pull request #9 from alexandersep/Calculator	alexandersep committed 10 days ago	24a7a59
Merge pull request #8 from alexandersep/main	alexandersep committed 10 days ago	fdf742a
Create haskell.yml	alexandersep committed 10 days ago	ef8e4b3
Merge pull request #7 from alexandersep/Operators-and-Operands	alexandersep committed 10 days ago	dc03b0c
Added initial fundamental functions for parsing string	alexandersep committed 10 days ago	82b4efb
Finalising first initialisation	alexandersep committed 10 days ago	109585d
Fixing formatting on README	alexandersep committed 10 days ago	4b0a08a
README aesthetic change	alexandersep committed 10 days ago	7677cc4
README.md initial setup	alexandersep committed 10 days ago	018bb74
Fixed name of git ignore to ignore files not required	alexandersep committed 10 days ago	74f1031
gitignore updated	alexandersep committed 10 days ago	bce0cb0
Commits on Sep 26, 2022		
Fixing formatting on README	alexandersep committed 10 days ago	4b0a08a
README aesthetic change	alexandersep committed 10 days ago	7677cc4
README.md initial setup	alexandersep committed 10 days ago	018bb74
Fixed name of git ignore to ignore files not required	alexandersep committed 10 days ago	74f1031
gitignore updated	alexandersep committed 10 days ago	bce0cb0
Initial setup for CUS33012 Calculator Assignment 1 SWENG	alexandersep committed 10 days ago	4c59e51
Initial commit	alexandersep committed 10 days ago	e4609e6

- Postfix-Prefix Branch

Link To repo <https://github.com/alexandersep/CSU33012-SWENG-ASS1>