CSU33012 - Software Engineering - Assignment 1

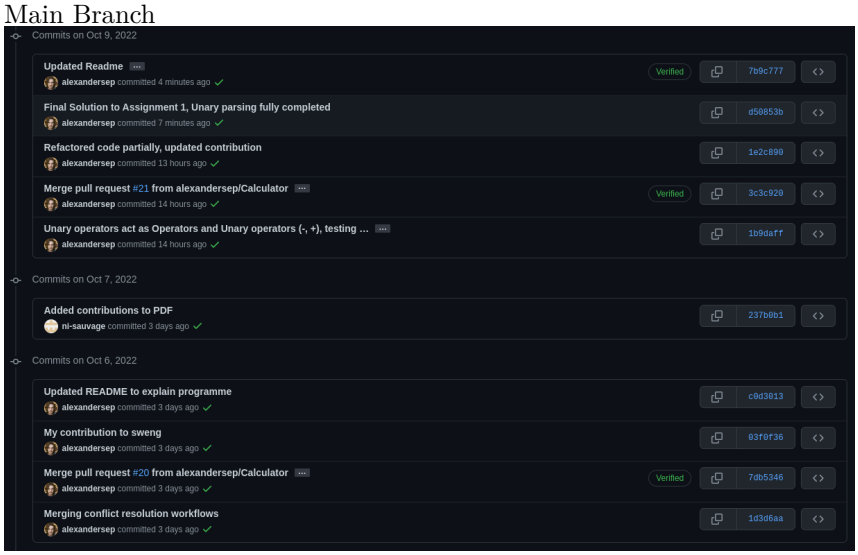
- Infix validator and calculator written in **Haskell** using *Hunit*, *QuckCheck* for unit testing and github workflow actions.

Contributors & Contributions

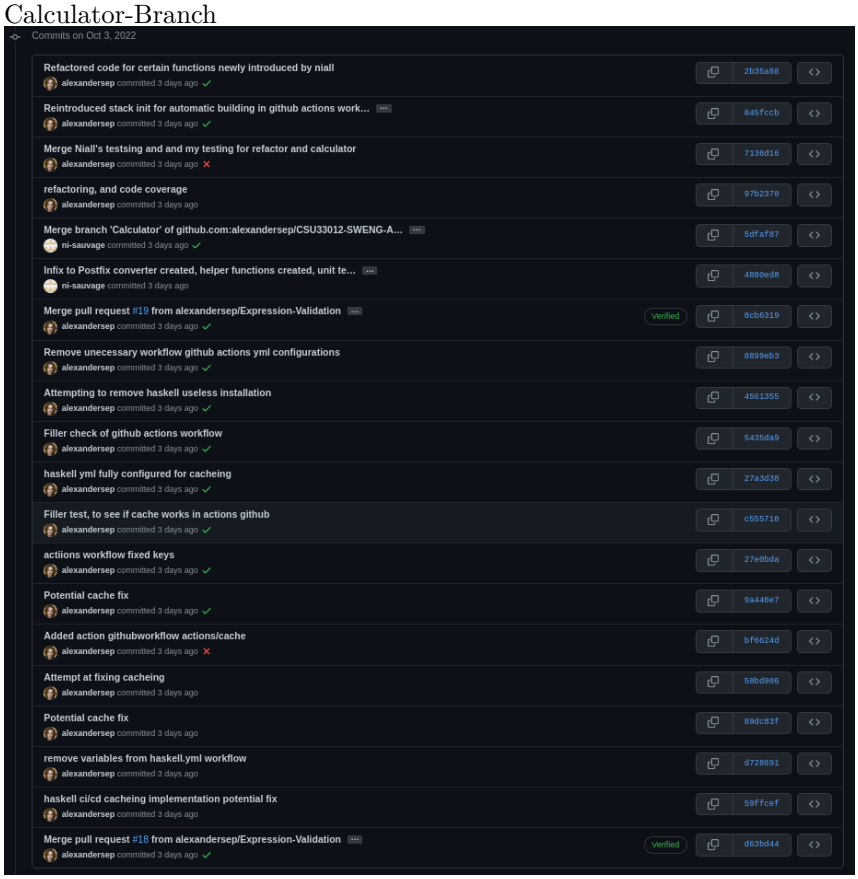
- Alexander Sepelenco
  - Acted as github lead with organising, README, issues, pull requests, github workflow, and setting up Haskell with stack.
  - Set up Haskell unit testing: Hunit, and Quickcheck.
  - Set up github including github workflow with caching.
  - Implemented the following functions 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.

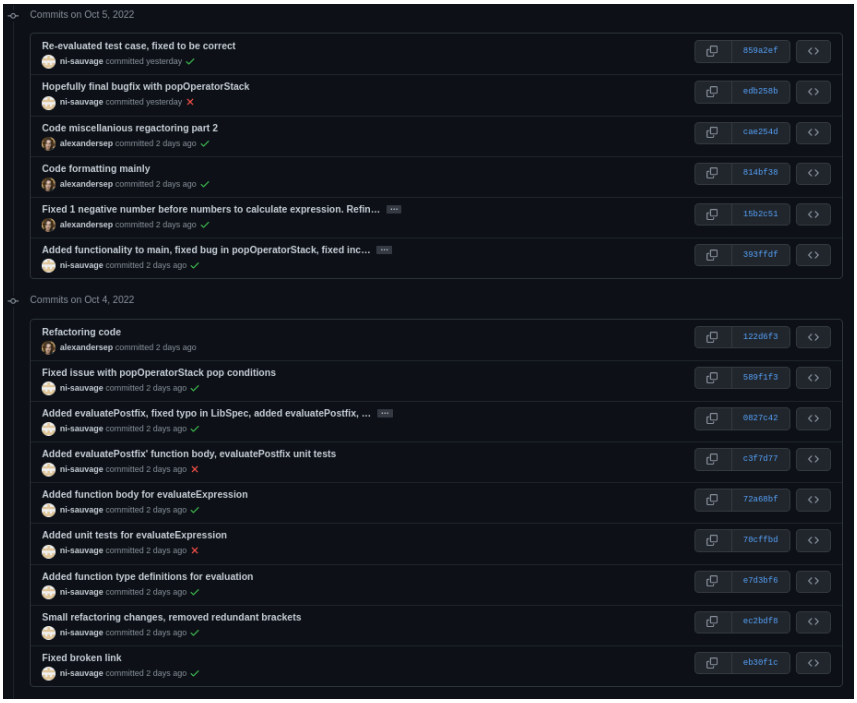
Graph of commit logs

- Main Branch

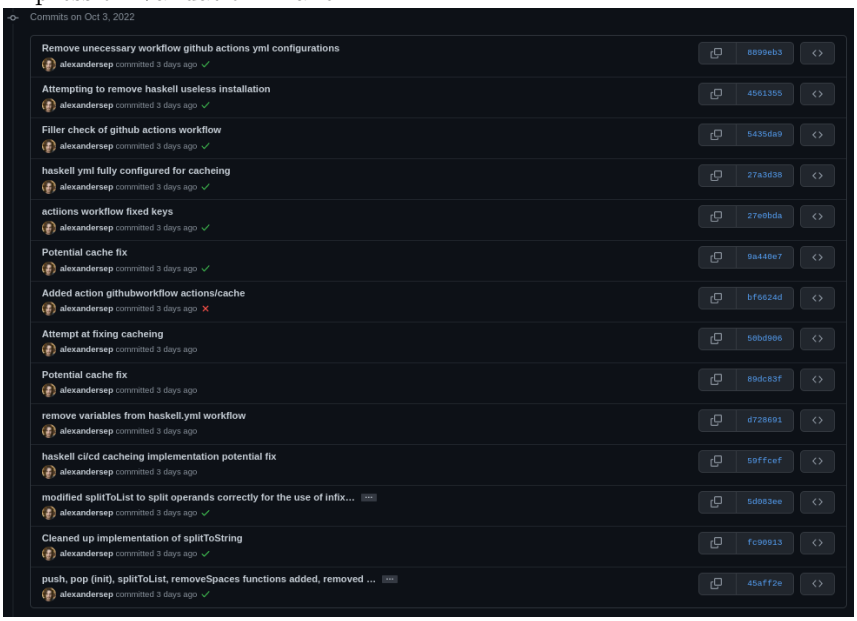


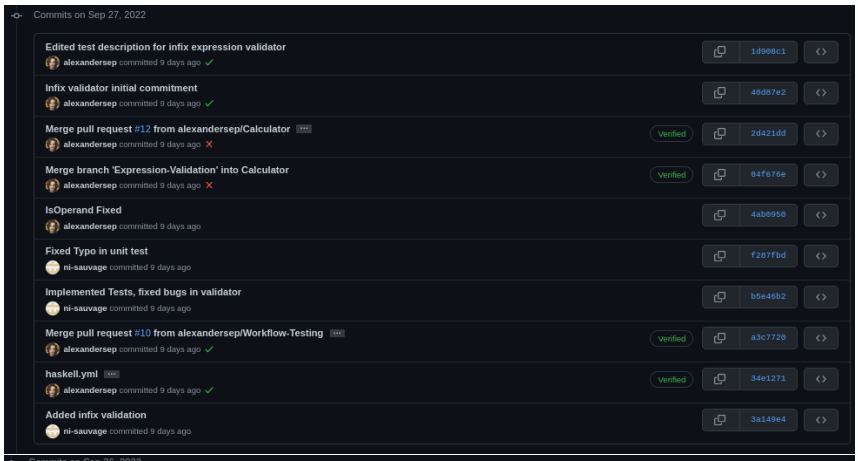
- Calculator-Branch



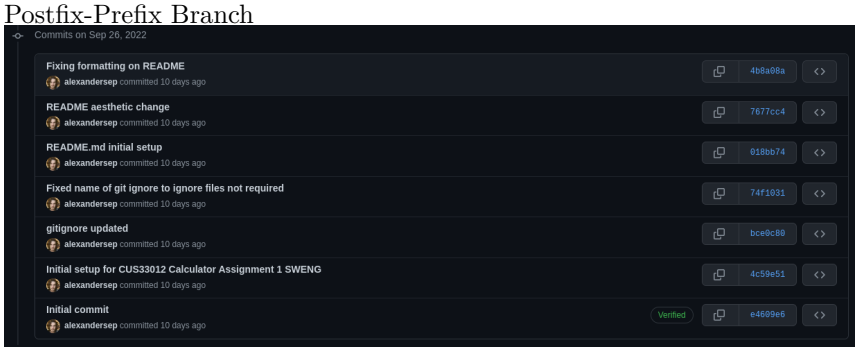


- Expression-Validation Branch





- Postfix-Prefix Branch



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