EECS 448 – Software Engineering I Project 03
System Documentation

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Story Point Analysis of Previous EECS Projects

1	2	3	5	8	13
Lab 1 -Simple Printing Exercise	Lab 6-Array reversal, file I/O	Lab 3-Lidear Sensor	Lab 10-Intro to OOP	Lab 11-DMV Class	Lab 7 -Recursion& Backtracking
Lab 4 - Fibonacci Numbers, ASCII Conversion	Lab 1- Command-line argument file manipulation	Lab6 – Recursion exercises	Lab4 – Elevator(Queues &Stacks)	Lab9,Lab10-Binary Search Tree	EECS 448-project1
Homework Assignment 1	Lab8 – Time Complexities	Homework Assignment 2	Homework Assignment 3	Lab5-Browser Tracking (List)	EECS 448-Project2
	Homework Assignment 4	Lab 6-Unified Modeling Language		Homework Assignment 5	EECS 448-Project3

Legend:

	EECS 168
	EECS 268
	EECS 368
	EECS 388
	EECS 448

1. Introduction:

Our project 3 is a calculator program implemented in JavaScript, HTML and CSS that performs addition, subtraction, multiplication, division, and remainder. We also created a windowed interface for this calculator. After a group discussion, we are going to improve the calculator in the project 4 into a scientific calculator that can calculate slightly more complex trigonometric and calculus equations.

2.Background:

Calculator is one of the most basic features of a modern computer. Other than AI, modern calculator software reused lots of features in the past. Today, we would like to write our own, to mark our debut in the world of software engineering. In addition of typical features, we would also like to add something that is only available in TI NSpire or Wolfram Alpha.

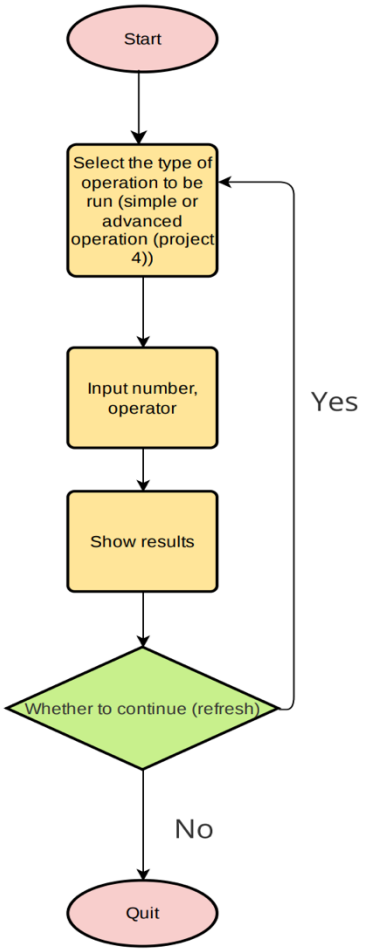
3.Code structure and detail:

Basic design ideas
(1) Enables four operations (addition, subtraction, multiplication and division).

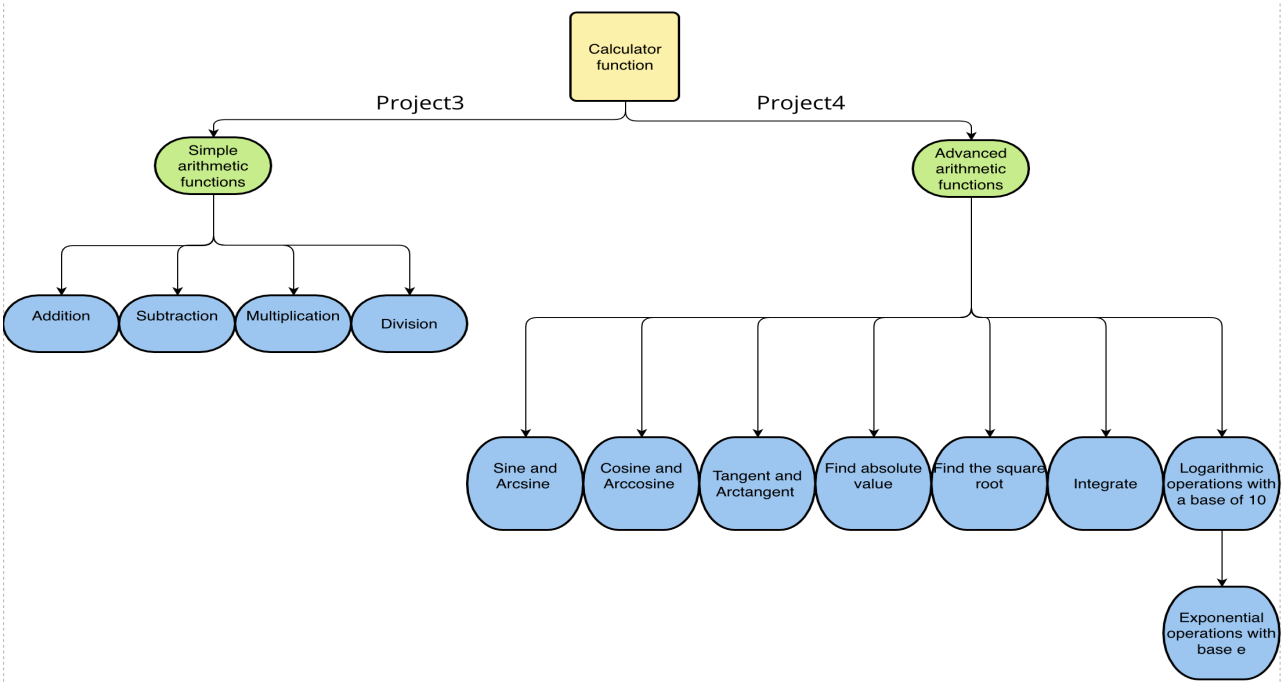
(2) Can realize multiple consecutive calculations (no priority, calculate the result from left to right). For example: 12 + 34 * 5 - 78 / 2 + 9 = 85 --> ((12 + 34) * 5 - 78) / 2 + 9

(3) The maximum length is limited to the maximum number of interfaces that can be accommodated, and the alarm will be raised when it overflows.

Project 3 Calculator Flow Chart



Calculator function module diagram



4.Conclusion:

Trying to do a project in a different language for the first time was a new challenge, and it was also very helpful for our teamwork and innovation.