**CalcModified IPO chart and Algorithm**

**IPO Chart**

|  |  |  |
| --- | --- | --- |
| **Input** | **Process** | **Output** |
| operator, input1, input2 | Prompt user for operator, input1, input2 | Display result |
|  | do...While (operator != 'x' || operator != 'X') |  |
|  | Switch(operator) |  |
|  | Case A or a:  CALCULATE  result = input1 + input2  DISPLAY result |  |
|  | Case B or b:  CALCULATE  result = input1 - input2  DISPLAY result |  |
|  | Case C or c:  CALCULATE  result = input1 \* input2  DISPLAY result |  |
|  | Case D or d:  CALCULATE  result = input1 / input2  DISPLAY result |  |
|  | Case X or x:  DISPLAY Good Bye!  System.exit(0); |  |
|  | END do...While (operator != 'x' || operator != 'X') |  |

**Algorithm**

**import java.util.\*; //used for scanner**

**CLASS Main**

**Main Method**

DECLARE new default Calc object from Calc Class (only for part 2)

DECLARE instantiating Scanner Object

DECLARE INITIALIZE operator, input1, input2

OUTPUT intro

do...While (operator != 'x' || operator != 'X')

OUTPUT menu

PROMPT user operator, input1, input2

GET operator, input1, input2

SWITCH(operator)

Case A or a:

CALCULATE result = input1 + input2

DISPLAY result

BREAK

Case B or b:

CALCULATE result = input1 - input2

DISPLAY result

BREAK

Case C or c:

CALCULATE result = input1 \* input2

DISPLAY result

BREAK

Case D or d:

CALCULATE result = input1 / input2

DISPLAY result

BREAK

Case X or x:

DISPLAY Good Bye!

System.exit(0);

Default:

DISPLAY invalid selection

System.exit(0);

**END** switch

**END** do...While (operator != 'x' || operator != 'X')

**END of Main Method**

**END of CLASS Main**