The calculation is included in the state. The state will receive the input and the calculator object and changes the calculator according to the input.

Calculator object parses the input and pick a state depending on the input to reduce complexity for state classes.

Calculator has:

* acc: total
* n: current number
* currentState: the state as a result of the current button pressed.
* previousState: used to store the operator’s state (because we are using in-order traversal)

There are five states:

* DigitFirstState: handles the first number pressed, or the first number after error or operator.
* DigitSecondState: can only be accessed by DigitFirstState: handles subsequen numbers after DigitFirstState.
* Plus: sets the state for plus operator.
* Minus: set the state for minus operator.
* Equal: forcibly calls the calculate() function. Only DigitFirstState and Equal can invoke the calculate function (if the operator states are set).
* ErrorState: set the error state if input is invalid (negative, other symbols).