Andrew Gartner

Diagram:

Calculator



Psuedocode:

Calculator:

A = A

B = B

 Addition:

 A + B

 Subtraction:

 A – B

 Multiplication:

 A \* B

 Division:

 A / B

 Modules:

 A % B

 Power:

 A \*\* B

 Average:

 (A+B) / 2

 Factorial:

 Result = 1

 For I in range(1, + 1)

 Result \*= 1

 Return result

Square root:

 A \*\* 0.5

Cube root:

 A \*\* (1/3)

Absolute value:

 Return abs (a)

Print Addition

Print Subtraction

Print Multiplication

Print Division

Print Modules

Print Power

Print Average

Print Factorial

Print Square root

Print Cube root

Print Absolute Value

Print exit

Print Welcome Message (“Your Calculator!”)

Input choice

While choice != 12:

 If choice less than 8, then it’s binary

If choice < 8:

 A = “Enter first command:”

 B = “Enter second command:”

 If choice == 1:

 Print(“Result: {a} + {b} =”, calc.add())

 Elif choice == 2:

 Print(“Result: {a} – {b} =”, calc.sub())

 Elif choice == 3:

 Print(“Result: {a} \* {b} =”, calc.mul())

 Elif choice == 4:

 Print(“Result: {a} / {b} =”, calc.div())

 Elif choice == 5:

 Print(“Result: {a} % {b} =”, calc.mod())

 Elif choice == 6:

 Print(“Result: {a} ^ {b} =”, calc.power())

 Elif choice == 7:

 Print(“Result: ({a} + {b}) / 2 =”, calc.average())

If choice < 7, then it’s a unary operation

 Else:

 A = “Enter operand:”

 If choice == 8:

 Print “Result: {a} !=”, calc.factorial())

 Elif choice == 9:

 Print(“Result: sqrt({a})=”, calc.sqrt())

 Elif choice == 10:

 Print(“Result: cbrt({a})=”, calc.cube\_root())

 Elif choice == 11:

 Print(Result: |{a}|=”, calc.abs())

Print()

PrintMenu()

Choice = “Enter your choice:”

Main()