1./ Assignment requires programmer to use Go, a high level programming language, to create a calculator which can do addition, subtract, multiplication, division, power and parentheses sequence of numbers

2./ In this programming assignment you will create a Go program that reads expressions from standard input (i.e., the console), evaluates them, and prints the result. These expressions support addition, subtraction, multiplication, division, and exponentiation as well as parentheses.

3./This assignment is interesting because it requires programmer to have knowledge of Go, stack data structure (first in last out) and recursion. Furthermore, programmer need to manipulate and prioritize operator and operand in Stack to output correct result.

Bottleneck: Go doesn't allow to calculate two operand of the different type such as (int + float) so programmer need to overcome this obstacle and use interface to able to manipulate two different type of operand

4./

Golint C:\Project\Go\src\calculator-hint>golint Khuong_Nguyen_Calculator.go

Khuong_Nguyen_Calculator.go:15:1: comment on exported function Power should be of the form "Power ..."

Result: C:\Project\Go\src\calculator-hint>go run Khuong_Nguyen_Calculator.go

10+20*30^2

18010

10 + (20 * 30)^2

360010

2 ^ 3 ^ 2

512

(2^3)^2

64

((((((((((10))))))))))

10

2 * 3 +

illegal expression: operand stack underflow

0

(2 + 3

illegal expression: operator expected but operand found

0

1/0

+Inf

1/1

1

1.0/1

1

1.0/0

+Inf

1-0.75

0.2499999999999999

5./Conclusion.

This assignment is exciting because I have learnt how to code in Go. Go is a readability and flexibility language which I enjoy to code. It is easy to pick up and code in Go because it looks like Python. I don't need to sweat to put ; everywhere like C++ and also I don't have to do indentation which require in Python. One of feature I hate in Go is every variable declare need to be use or it will give error. Even though, Go doesn't give me a lot of freedom to manipulate string (string is immutable in Go)