PROLOG BASED CALCULATOR

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Intelligent Systems – CST 372-3
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Introduction

Note that prolog is an ancient language, and now for a few days, it is very doubtful that someone can learn it. And what I am going to do is a tiny professional framework that calculates numbers by main operators.
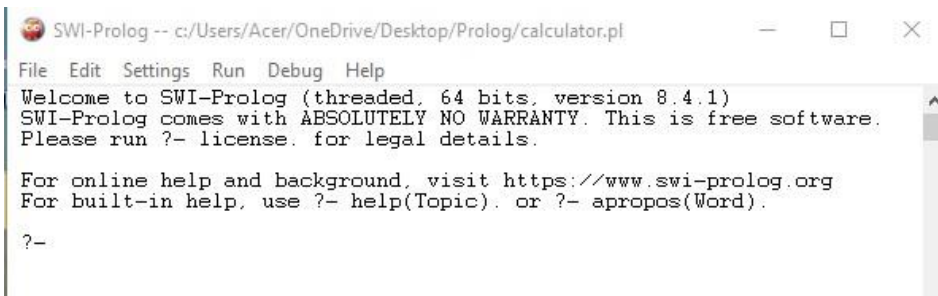
I'm considering 4 main operations. There are:

- ❖ Addition
- ❖ Subtraction
- ❖ Multiplication
- ❖ Division

How to Run it

Open SWI-Prolog and go to menu then select file **calculator.pl**

The following pictures illustrate how this prolog system works. There are some other output screenshots of my work as well.
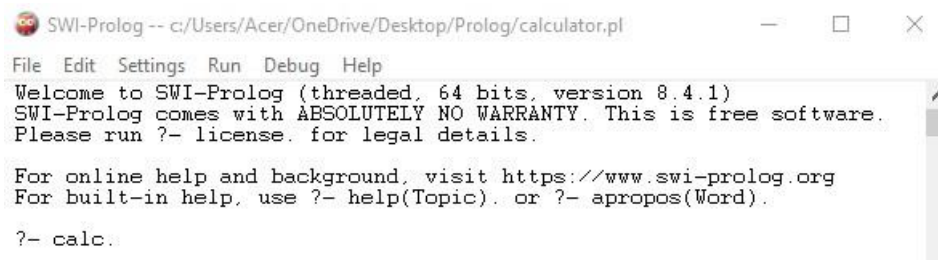

Type calc.

```
SWI-Prolog -- c:/Users/Acer/OneDrive/Desktop/Prolog/calculator.pl        —   □   ✕

File  Edit  Settings  Run  Debug  Help
Welcome to SWI-Prolog (threaded, 64 bits, version 8.4.1)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?- calc.
**********************************************************************
**********************************************************************
####################||| CALCULATOR |||#######################
**********************************************************************
**********************************************************************
1 - Sum
2 - Subtraction
3 - Division
4 - Multiplication
5 - Exit
Enter an option:
| :
```

Addition

```
SWI-Prolog -- c:/Users/Acer/OneDrive/Desktop/Prolog/calculator.pl        —   □   ✕

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?- calc.
**********************************************************************
**********************************************************************
####################||| CALCULATOR |||#######################
**********************************************************************
**********************************************************************
1 - Sum
2 - Subtraction
3 - Division
4 - Multiplication
5 - Exit
Enter an option:
| : 1.
SUM = A + B
A: | :
```

```
SWI-Prolog -- c:/Users/Acer/OneDrive/Desktop/Prolog/calculator.pl          —    □    ×

File  Edit  Settings  Run  Debug  Help
Welcome to SWI-Prolog (threaded, 64 bits, version 8.4.1)                       ^
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?- calc.
******************************************************************
******************************************************************
####################||| CALCULATOR |||######################
******************************************************************
******************************************************************
1 - Sum
2 - Subtraction
3 - Division
4 - Multiplication
5 - Exit
Enter an option:
|: 1.
SUM = A + B
A: |: 24.
24
B: |: 86.
86
          24 + 86 = 110

******************************************************************
******************************************************************
####################||| CALCULATOR |||######################
******************************************************************
******************************************************************
1 - Sum
2 - Subtraction
3 - Division
4 - Multiplication
5 - Exit
Enter an option:
|:
```

Subtraction

```
******************************************************************
******************************************************************
####################||| CALCULATOR |||######################
******************************************************************
******************************************************************
1 - Sum
2 - Subtraction
3 - Division
4 - Multiplication
5 - Exit
Enter an option:
|: 2.
SUBTRACTION = A - B
A: |: 48.
48
B: |: 15.
15
          48 - 15 = 33
```

Division

```
1 - Sum
2 - Subtraction
3 - Division
4 - Multiplication
5 - Exit
Enter an option:
|: 3.
DIVISION = A / B
A: |: 842.
842
B: |: 12.
12
          842 / 12 = 70.16666666666667
```

Multiplication

```
-----------------------------------------------------------------------------------
1 - Sum
2 - Subtraction
3 - Division
4 - Multiplication
5 - Exit
Enter an option:
|: 4.
MULTIPLICATION = A * B
A: |: 48.
48
B: |: 14.
14
          48 * 14 = 672
```

Exit

```
******************************************************************
******************************************************************
#####################||| CALCULATOR |||#######################
******************************************************************
******************************************************************
1 - Sum
2 - Subtraction
3 - Division
4 - Multiplication
5 - Exit
Enter an option:
|: 5.
          ##################### Exit Calculator ###################!
true .

?-
```