PROJECT
ON OOPS CONCEPT
(MINI PROJECT)

Project on Simple Calculator

Summation, Multiplication, Subtraction, Power, floordiv, Mod, greater than, less than, division Multiple Inheritance

SOURCE CODE

```
class Calculator1:
    def __add__(self,a,b):
        return f"Summation of Simple Calculator ",a+b

    def __sub__(self,a,b):
        return f"Subtraction of Simple Calculator ",a-b

    def __mul__(self,a,b):
        return f"Multiplication  of Simple Calculator ",a*b

    def __truediv__(self,a,b):
        return f"__truediv__ of Simple Calculator ",a/b

    def __floordiv__(self,a,b):
        return f"__floordiv__ of Simple Calculator ",a//b

    def __pow__(self,a,b):
        return f"Power of Simple Calculator ",a**b

    def __mod__(self,a,b):
        return f"__Mod__ of Simple Calculator ",a%b
    def __exit__(self,a,b):
        return f"Exit the Calculator of Number",

#create a calculator object
```

```
my_cl = Calculator1()

#Using While Loop
while True:

    print("1: Add")
    print("2: Subtract")
    print("3: Multiply")
    print("4: Truediv")
    print("5: Floordiv")
    print("6: Power")
    print("7: Mod")
    print("8: Exit")


    ch = int(input("Select operation: "))

    #Make sure the user have entered the valid choice
    if ch in (1, 2, 3, 4, 5, 6, 7, 8, 9):

        #first check whether user want to exit
        if(ch == 9):
            break

        #If not then ask fo the input and call appropiate methods
        a = int(input("Enter first number: "))
        b = int(input("Enter second number: "))

        if(ch == 1):
            print(a, "+", b, "=", my_cl.__add__(a, b))
        elif(ch == 2):
            print(a, "-", b, "=", my_cl.__sub__(a, b))
```

```
        elif(ch == 3):
            print(a, "*", b, "=", my_cl.__mul__(a, b))
        elif(ch == 4):
            print(a, "/", b, "=", my_cl.__truediv__(a, b))
        elif(ch == 5):
            print(a, "//", b, "=", my_cl.__floordiv__(a, b))
        elif(ch == 6):
            print(a, "**", b, "=", my_cl.__pow__(a, b))
        elif(ch == 7):
            print(a, "%", b, "=", my_cl.__mod__(a, b))
        elif(ch ==8):
            print("Exit the Calculator Number ")
    else:
        print("Invalid Input")


#Calculator1,Calculator2 is the Condition check
class Calculator2:
    def gt(self,a,b):
        return f"Greater than of Simple Calculator ",a>b
class Calculator3:
    def lt(self,a,b):
        return f"Less than of Simple Calculator ", a<b


#Display the data self Calculator2 and Calculator3
class display(Calculator2,Calculator3):
    def divide(self,a,b):
        return f"Division of Simple Calculator ",a/b

d=display()
print(d.gt(55,67))
```

```
print(d.lt(55,67))
print(d.divide(20,5))
```

OUTPUT:

```
1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 1
Enter first number: 456
Enter second number: 45
456 + 45 = ('Summation of Simple Calculator ', 501)

1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 7
Enter first number: 77
Enter second number: 567
77 % 567 = ('__Mod__ of Simple Calculator ', 77)

1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 6
Enter first number: 8
Enter second number: 5
8 ** 5 = ('Power of Simple Calculator ', 32768)

1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 5
Enter first number: 234
Enter second number: 23
234 // 23 = ('__floordiv__ of Simple Calculator ', 10)
```

```
1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 4
Enter first number: 4
Enter second number: 2
4 / 2 = ('__truediv__ of Simple Calculator ', 2.0)

1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 360
Invalid Input

1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 3
Enter first number: 60
Enter second number: 2
60 * 2 = ('Multiplication  of Simple Calculator ', 120)

1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 2
Enter first number: 50
Enter second number: 37
50 - 37 = ('Subtraction of Simple Calculator ', 13)

1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
```

```
7: Mod
8: Exit
Select operation: 8
Enter first number: 4
Enter second number: 3
Exit the Calculator Number

1: Add
2: Subtract
3: Multiply
4: Truediv
5: Floordiv
6: Power
7: Mod
8: Exit
Select operation: 9

('Greater than of Simple Calculator ', False)
('Less than of Simple Calculator ', True)
('Division of Simple Calculator ', 4.0)
```