

In [12]: #Q1 Make a calculator using Python with addition , subtraction ,multiplication ,division and power.

```
# Function to add two numbers
def add(num1, num2):
    return num1 + num2

# Function to subtract two numbers
def subtract(num1, num2):
    return num1 - num2

# Function to multiply two numbers
def multiply(num1, num2):
    return num1 * num2

# Function to divide two numbers
def divide(num1, num2):
    return num1 / num2

# Function to power two numbers
def power(num1, num2):
    return num1 * num2

print("Please select operation -\n" \
      "1. Add\n" \
      "2. Subtract\n" \
      "3. Multiply\n" \
      "4. Divide\n" \
      "5. power\n")

# Take input from the user
select = int(input("Select operations from 1, 2, 3, 4, 5 :"))

number1 = int(input("Enter first number: "))
number2 = int(input("Enter second number: "))

if select == 1:
    print(number1, "+", number2, "=",
          add(number1, number2))

elif select == 2:
    print(number1, "-", number2, "=",
          subtract(number1, number2))

elif select == 3:
    print(number1, "*", number2, "=",
          multiply(number1, number2))

elif select == 4:
    print(number1, "/", number2, "=",
          divide(number1, number2))

elif select == 5:
    print(number1, "**", number2, "=",
          power(number1, number2))

else:
    print("Invalid input")
```

```
Please select operation -
1. Add
2. Subtract
3. Multiply
4. Divide
5. power

Select operations from 1, 2, 3, 4,5 :2
Enter first number: 4
Enter second number: 2
4 - 2 = 2
```

In [34]: #Q2 Write a program to check if there is any numeric value in List using for Loop.

```
list = ["waqas", "vicky", 4, "class"]
for i in list:
    if type(i) == int:
        print(i)
```

```
4
```

In [36]: #Q3 Write a Python script to add a key to a dictionary.

```
d = {0:12345, 1:234566}
print(d)
d.update({2:644536})
print(d)

{0: 12345, 1: 234566}
{0: 12345, 1: 234566, 2: 644536}
```

In [37]: #Q4 Write a Python program to sum all the numeric items in a dictionary.

```
my_dict = {'data1':5000,'data2':-600,'data3':-300}
print(sum(my_dict.values()))
```

4100

```
In [38]: #Q5 Write a program to identify duplicate values from list.
l=[1,2,3,4,5,2,3,4,7,9,5]
l1=[]
for i in l:
    if i not in l1:
        l1.append(i)
    else:
        print(i,end=' ')
```

2 3 4 5

```
In [50]: #Q6 Write a Python script to check if a given key already exists in a dictionary
def key_in_dict(d, key):
    return (key in d)
students = {'waqas': 19, 'vicky': 22, 'asad': 21, 'afzal': 20}
print("\nOriginal dictionary elements:")
print(students)
print(key_in_dict(students, 'waqas'))
print(key_in_dict(students, 'vicky'))
```

```
Original dictionary elements:
{'waqas': 19, 'vicky': 22, 'asad': 21, 'afzal': 20}
True
True
```

In []: