191109010

Question No.1

(a)write a python functions to perform trigonometric operations

```
In [102]: #question no1 a
          import math as m
          print(f"Sin(0): {m.sin(0)}")
          print(f"Cos(0): {m.cos(0)}")
          print(f"Tan(0): {m.tan(0)}")
          print(f"Sec(0): {m.asin(0)}")
          print(f"Cosec(1): {m.acos(1)}")
          print(f"Cot(0): {m.atan(0)}")
```

```
Sin(0): 0.0
Cos(0): 1.0
Tan(0): 0.0
Sec(0): 0.0
Cosec(1): 0.0
Cot(0): 0.0
```

(b)write a lambda function for sum of two argument within def

```
In [42]: #question b
         def add(b):
             return lambda a:a+b
         sum = add(55)
         print(sum(45))
```

```
100
```

(c)write a program using a user defined function that displays sum of first n natural numbers,

where n is passed as an argument

```
In [49]: def wholesum(n) :
             sum = 0
             a = 1
             while a <=n :
                 sum += a
                 a += 1
             return sum
         n = int(input("Enter a number: "))
         print (wholesum(n))
```

```
Enter a number: 10
55
```

Question No.2

(a) Write a program using a user defined function myMean() to calculate the mean of floating values stored in a list

```
In [88]: import statistics as sts
         def myMean():
             stats = sts.mean(list)
             print(stats)
         list=[55.5,13.9,92.4,46.1,81.1]
         myMean()
```

```
57.8
```

(b) Write a program using a user defined function that accepts the first name and last name as arguments, concatenate them to get full name and displays the output.

In [99]:
```python
def myName(fname,lname):
    fullname = fname + lname
    print(fullname)
x = input("Enter your First name:")
y = input("Enter your Last name:")
myName(x,y)
```

```
Enter your First name:Ganesh
Enter your Last name:Babu
GaneshBabu
```

Question No.4

create a python file with file name as "myfile.txt". Perform all mode of operation in file. Display each word fo the file content.

Writing a new file(Creating)

In [89]:
```python
with open("myfile.txt","w") as my_file:
    my_file.write("Hi, I'm Python\n")
    my_file.write("Hello everyone\n")
    my_file.close
```

Reading a file

In [80]:
```python
with open("myfile.txt","r") as my_file:
    for line in my_file:
        print(line,end="")
```

```
Hi, I'm Python
Hello everyone
```

Appending

Appending

```
In [94]: with open("my_file.txt","a") as my_file:
             my_file.write("Be safe from pandemic.\n")
             my_file.write("These two lines added using append mode.\n")
             my_file.close()
```

Question No.3

```
In [101]: def traflight():
              signal = input("Enter the color of the Traffic light: ")
              if (signal not in ("RED", "YELLOW", "GREEN")):
                  print("Please enter a valid Traffic light color in CAPS")
              else:
                  value = light(signal)
              if (value ==0):
                  print("Stop!!!")
              elif (value == 1):
                  print("Please Slow down")
              else:
                  print("You can Go now!!!")

          def light(color):
              if (color == "RED"):
                  return 0
              elif(color =="YELLOW"):
                  return 1
              else:
                  return 2
          traflight()
          print("Don't too speed to go to the hell")
```

```
Enter the color of the Traffic light: YELLOW
Please Slow down
Don't too speed to go to the hell
```