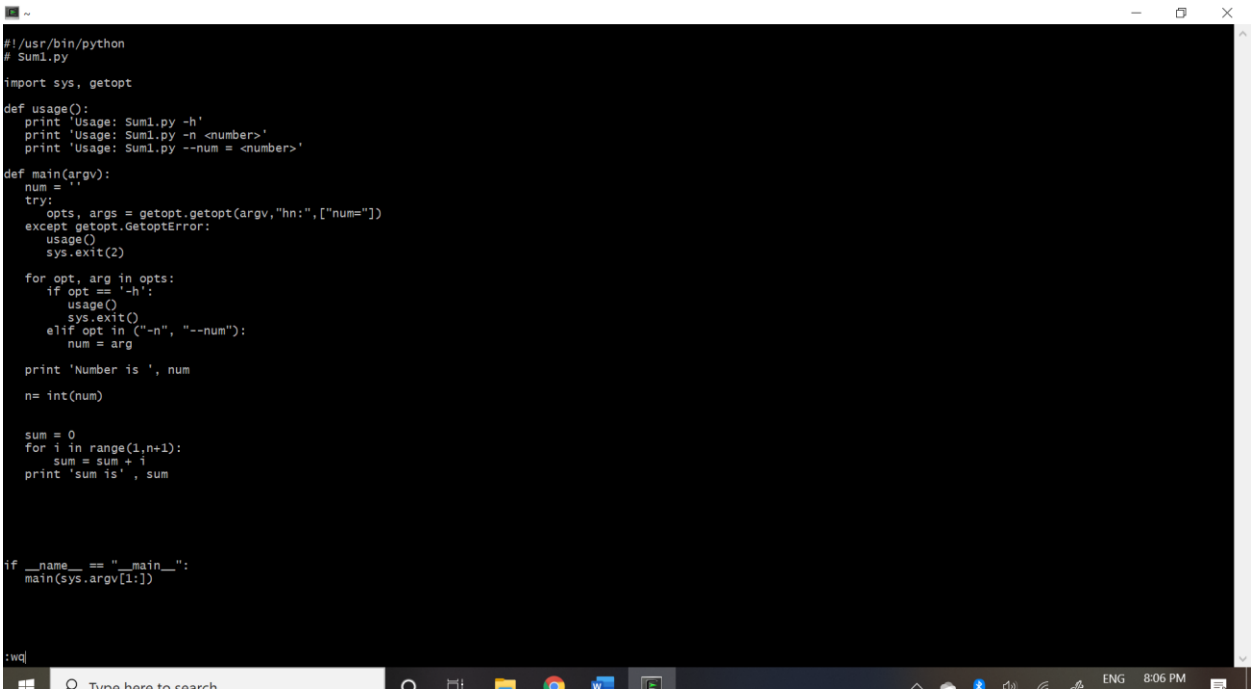
Q8: Please use getopt.getopt method to implement a Python script that finds the summation of 1 + 2 + 3 + 4 + ... + n

Code: Sum1.py

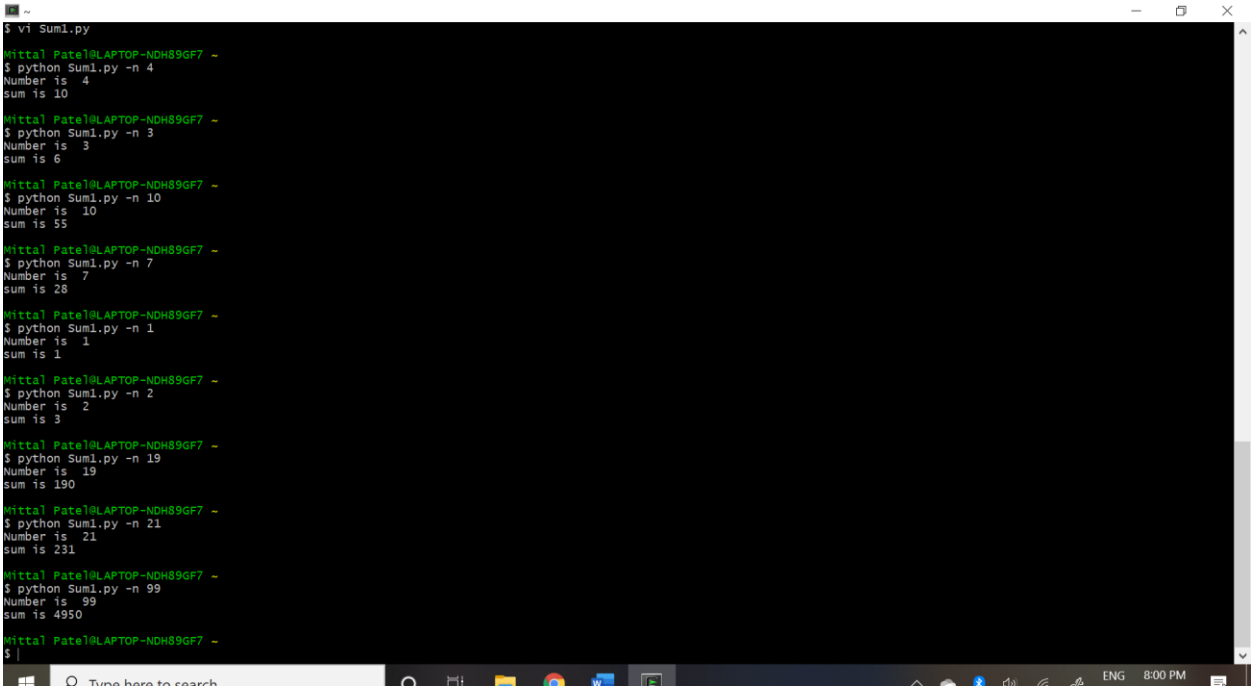
```
#!/usr/bin/python
# Sum1.py

import sys, getopt

def usage():
  print 'Usage: Add1.py -h'
  print 'Usage: Add1.py -n <number>'
  print 'Usage: Add1.py --num=<number>'

def main(argv):
  num = ''
  try:
    opts, args = getopt.getopt(argv,"hn:",["num="])
  except getopt.GetoptError:
    usage()
    sys.exit(2)

  for opt, arg in opts:
    if opt == '-h':
      usage()
      sys.exit()
    elif opt in ("-n", "--num"):
      num = arg

  print 'Number is ', num

  n= int(num)

  sum = 0
  for i in range(1,n+1):
       sum = sum + i
  print 'Sum is ', sum

if __name__ == "__main__":
  main(sys.argv[1:])
```

Input:



```
#!/usr/bin/python
# Sum1.py

import sys, getopt

def usage():
   print 'Usage: Sum1.py -h'
   print 'Usage: Sum1.py -n <number>'
   print 'Usage: Sum1.py --num = <number>'

def main(argv):
   num = ''
   try:
      opts, args = getopt.getopt(argv,"hn:",["num="])
   except getopt.GetoptError:
      usage()
      sys.exit(2)

   for opt, arg in opts:
      if opt == '-h':
         usage()
         sys.exit()
      elif opt in ("-n", "--num"):
         num = arg

   print 'Number is ', num

   n= int(num)


   sum = 0
   for i in range(1,n+1):
       sum = sum + i
   print 'sum is' , sum




if __name__ == "__main__":
   main(sys.argv[1:])



:wq
```

Output:



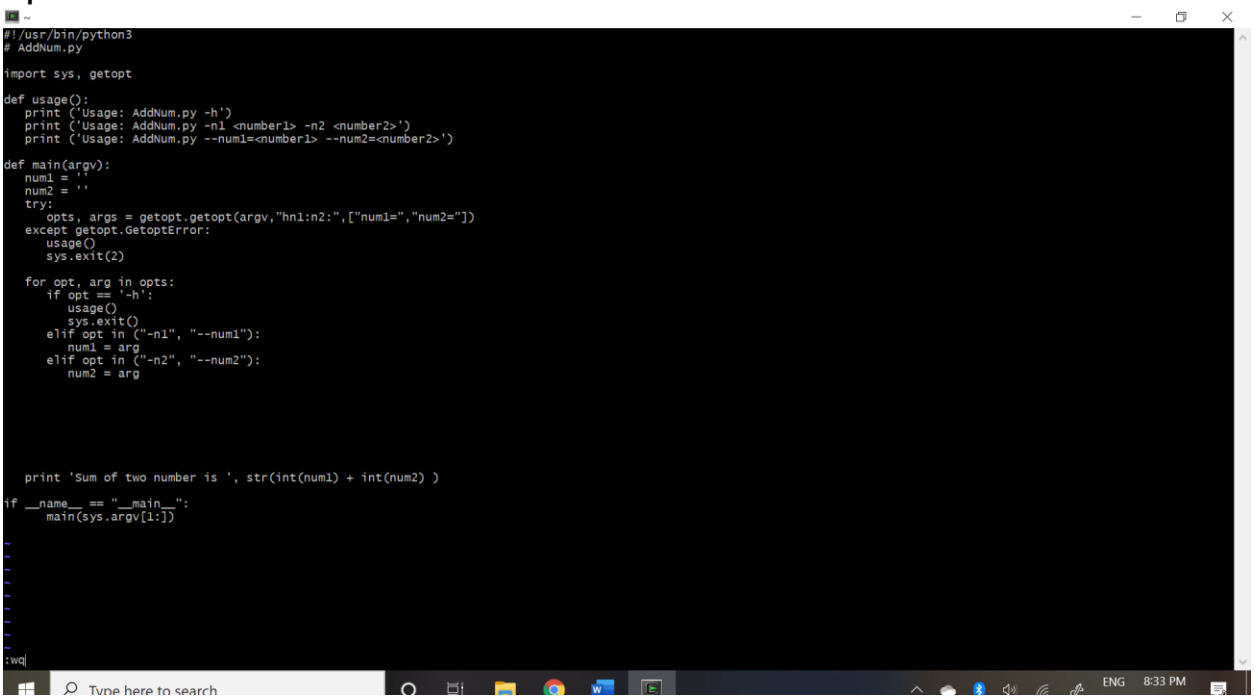
```
$ vi Sum1.py

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 4
Number is  4
sum is 10

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 3
Number is  3
sum is 6

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 10
Number is  10
sum is 55

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 7
Number is  7
sum is 28

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 1
Number is  1
sum is 1

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 2
Number is  2
sum is 3

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 19
Number is  19
sum is 190

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 21
Number is  21
sum is 231

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python Sum1.py -n 99
Number is  99
sum is 4950

Mittal Patel@LAPTOP-NDH89GF7 ~
$
```

Q11. Please use getopt.getopt method to implement a Python script that finds the summation of two numbers
$ sum.py -n 1 -m 2

Code: AddNum.py

```
#!/usr/bin/python3
# AddNum.py

import sys, getopt

def usage():
  print ('Usage: AddNum.py -h')
  print ('Usage: AddNum.py -n1 <number1> -n2 <number2>')
  print ('Usage: AddNum.py –num1=<number1> --num2=<number2>')

def main(argv):
  num1= ''
  num2 = ''
  try:
    opts, args = getopt.getopt(argv,"hn1:n2:",["num1=","num2="])
  except getopt.GetoptError:
    usage()
    sys.exit(2)

  for opt, arg in opts:
    if opt == '-h':
      usage()
      sys.exit()
    elif opt in ("-n1", "--num1"):
      num1 = arg
    elif opt in ("-n2", "--num2"):
      num2 = arg

  print 'Sum of two number is ', str(int(num1) * int(num2))

if __name__ == "__main__":
  main(sys.argv[1:])
```

Input:



```
#!/usr/bin/python3
# AddNum.py

import sys, getopt

def usage():
   print ('Usage: AddNum.py -h')
   print ('Usage: AddNum.py -n1 <number1> -n2 <number2>')
   print ('Usage: AddNum.py --num1=<number1> --num2=<number2>')

def main(argv):
   num1 = ''
   num2 = ''
   try:
      opts, args = getopt.getopt(argv,"hn1:n2:",["num1=","num2="])
   except getopt.GetoptError:
      usage()
      sys.exit(2)

   for opt, arg in opts:
      if opt == '-h':
         usage()
         sys.exit()
      elif opt in ("-n1", "--num1"):
         num1 = arg
      elif opt in ("-n2", "--num2"):
         num2 = arg




   print 'Sum of two number is ', str(int(num1) + int(num2) )

if __name__ == "__main__":
      main(sys.argv[1:])

~
~
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~
~
:wq
```
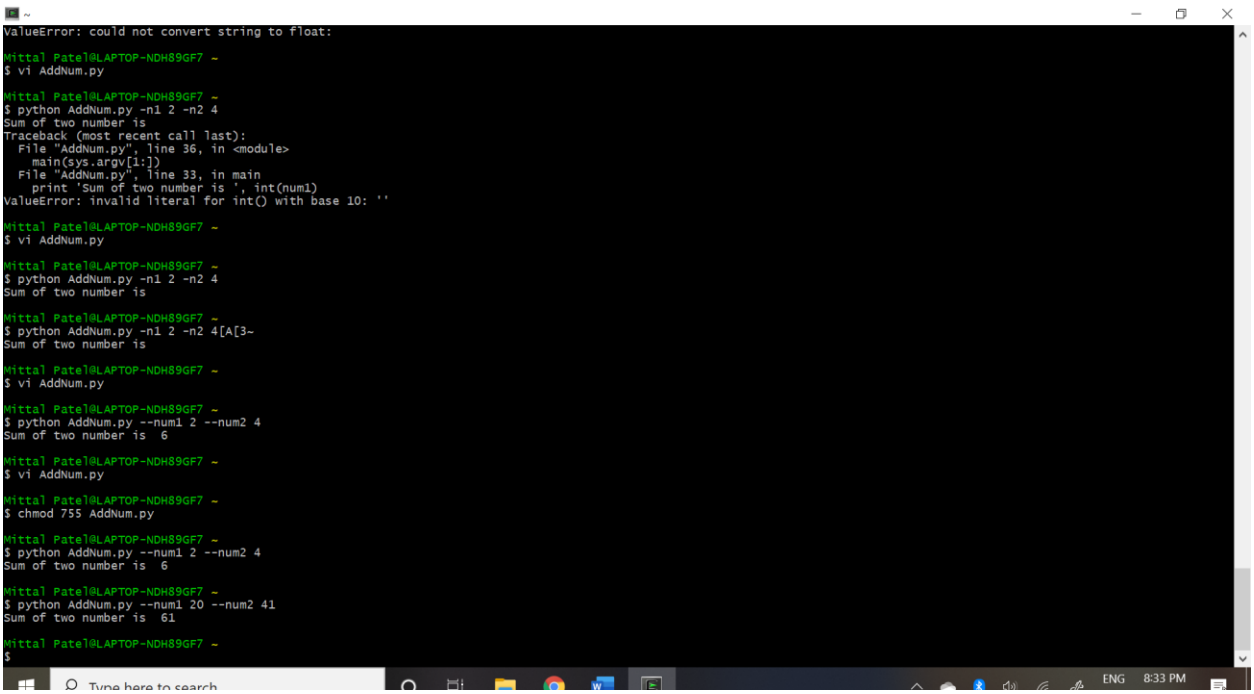

Output:



```
ValueError: could not convert string to float:

Mittal Patel@LAPTOP-NDH89GF7 ~
$ vi AddNum.py

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python AddNum.py -n1 2 -n2 4
Sum of two number is
Traceback (most recent call last):
  File "AddNum.py", line 36, in <module>
    main(sys.argv[1:])
  File "AddNum.py", line 33, in main
    print 'Sum of two number is ', int(num1)
ValueError: invalid literal for int() with base 10: ''

Mittal Patel@LAPTOP-NDH89GF7 ~
$ vi AddNum.py

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python AddNum.py -n1 2 -n2 4
Sum of two number is

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python AddNum.py -n1 2 -n2 4[A[3~
Sum of two number is

Mittal Patel@LAPTOP-NDH89GF7 ~
$ vi AddNum.py

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python AddNum.py --num1 2 --num2 4
Sum of two number is  6

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$ vi AddNum.py

Mittal Patel@LAPTOP-NDH89GF7 ~
$ chmod 755 AddNum.py

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python AddNum.py --num1 2 --num2 4
Sum of two number is  6

Mittal Patel@LAPTOP-NDH89GF7 ~
$ python AddNum.py --num1 20 --num2 41
Sum of two number is  61

Mittal Patel@LAPTOP-NDH89GF7 ~
$
```