8/16/2021 Q1

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In [1]:
         # To sum odd, even and all first N natural numbers
         def sum(N):
             error_msg = 'The number inserted in not a natural number.'
             if N > 0 and isinstance(N,int): # Checking whether input is natural number
                  sum odd = 0
                  sum_even = 0
                  for i in range(1,N+1):
                      if i%2 == 0: # Summing even numbers till N
                          sum_even+=i
                      else: # Summing odd numbers till N
                          sum_odd+=i
                  sum_all = sum_even + sum_odd
                  dict_of_sums = {
                      'Sum of Even numbers till N is' : sum_even,
                      'Sum of Odd numbers till N is' : sum_odd,
                      'Sum of All numbers till N' : sum_all
                  return dict_of_sums
             else:
                  return error_msg
In [2]:
         sum(10)
         {'Sum of Even numbers till N is': 30,
Out[2]:
          'Sum of Odd numbers till N is': 25,
          'Sum of All numbers till N': 55}
In [3]:
         sum(123)
        {'Sum of Even numbers till N is': 3782,
Out[3]:
          'Sum of Odd numbers till N is': 3844,
          'Sum of All numbers till N': 7626}
In [4]:
         sum(-34)
         'The number inserted in not a natural number.'
Out[4]:
In [5]:
         sum(-11.34)
         'The number inserted in not a natural number.'
Out[5]:
In [6]:
         sum(12.3)
         'The number inserted in not a natural number.'
Out[6]:
```