



Above is the sum of integers from 1 to 100.

Below is the modified program to calculate the sum of the squares of the integers 1 to 100:

```
.globl main
main: # sum of integers from 1 to 100
.text
add $t0, $zero, $zero # I is zero
add $s0, $zero, $zero # Sum is zero
addi $t1, $zero, 100 # set the limit value (100)
loop:
addi $t0, $t0, 1 # I = I + 1
mul $t2, $t0, $t0 # t2 = I * I
add $s0, $s0, $t2 # Sum = Sum + (I)^2
blt $t0, $t1, loop # I < 100 loop to do again
addi $v0, $zero, 4 # print string
la $a0, str # the text for output
syscall # call opsys
addi $v0, $zero, 1 # print integer
add $a0, $zero, $s0 # the integer is sum
syscall # call opsys
addi $v0, $zero, 4 # print string
la $a0, stopped # the text for output
syscall # call opsys
addi $v0, $zero, 10 # finished .. stop .. return
syscall # to the Operating System
.data
str: .asciiz "The sum of the squares of the integers 1 .. 100 is
"
stopped:
.asciiz "\nStopped."
```

And below is the updated output:

