MIPS - Sum of Integers - 2018

Please copy the following program:

```
     .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
     add  $s0, $s0, $t0     # Sum = Sum + I
     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 integers 1 ... 100 is "
stopped:
     .asciiz "\nStopped."
```

Save the text file with the extension '.asm' or '.s'

Run the program in the QtSpim simulator.
Capture the Console screen image.
Modify the program to calculate the sum of the squares of the integers from 1 to 100.

The work products of this assignment are:

1) The .asm or .s text file with the modified source program code.
2) Screen captures showing the output results:
   - Both original sum, and the modified sum of squares

[50 points]