DATE: 26-02-2025 12:04:03 USER: MAINT JOB: PERFORM PAGE: 0000 FILE NAME/TYPE= STDIN **PERFORM** MAINT PERFORM MAINT MAINT PERFORM CREATION DATE/TIME= 26-02-2025 12:04:03 **PERFORM** MAINT PERFORM MAINT FILE= 001 PAGES= 0001 LINES= 000015 **PERFORM** MAINT SYSTEM= LINUX(6.12.13-AMD64) PERFORM MAINT PERFORM MAINT SYSID= ACID SYSUSER= ACID PERFORM MAINT **PERFORM** MAINT PERFORM MAINT FORM= STANDARD **PERFORM** MAINT PERFORM MAINT CHAR= FONTMONO 17 PERFORM MAINT PERFORM PRT1403 VERSION= 1.3 MAINT М М AAA IIIIII NN TTTTTTT MM MM AAAAA IIIIII NN NN TTTTTTT MMM MMM AA II NNN NN TT AΑ II MMMM MMMM AA NNNN NN TT AA NN NN NN MM MMM AA II TT М MM AAAAAAAA NN NN MM ΙI NN MM AAAAAAAA MM IINN NNNN  $\mathsf{TT}$ MM MM AA AA IINN NNN TT TT MM MM AA AA IIIIII NN NN MM MM AA IIIIII NN TT 42 RRRRRRR PPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 0000000 PPPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 00000000 RRRRRRRR MM MM RR MMM PP EE RR RR FF 00 00 RR MMM PP EE RR RR FF 00 RR RR MMMM MMMM 00 PPPPPPPP EEEEEEEE RRRRRRRR FFFFFFF 00 OO RRRRRRRR MM MMM MM PPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 00 00 RRRRRRR MM RR RR RR FF 00 00 RR MM MM PP FF EE RRRR MM MM RR 00 00 RR EEEEEEEE RR RR FF 00000000 RR RR MM MM EEEEEEEE RR RR FF 0000000 RR MM MM 00000 00000 11 0000000 0000000 00 00 00 00 111 11 00 00 00 00 11 00 00 00 00 11 00 00 00 00 11 00 00 00 00 00 00 00 11 111111 0000000 0000000 00000 00000 111111 

DATE: 26-02-2025 12:04:03 USER: MAINT JOB: PERFORM PAGE: 0001

```
import time
     def sum_integers():
           total = 0
           for i in range(1, 10**7):
                 total += i
           return total
     start_time = time.time()
     result = sum_integers()
     end_time = time.time()
print(f"Python: The sum is {result}")
print(f"Python: Time taken = {end_time - start_time} seconds")
                                                                                                                                                                                                       20
21
22
23
24
25
26
27
                                                                                                                                                                                                       28
29
30
31
32
33
34
35
36
37
38
39
40
                                                                                                                                                                                                        40
41
42
43
44
45
46
47
```

DATE: 26-02-2025 12:04:03 USER: MAINT JOB: PERFORM PAGE: 0000 FILE NAME/TYPE= STDIN **PERFORM** MAINT PERFORM MAINT MAINT PERFORM CREATION DATE/TIME= 26-02-2025 12:04:03 **PERFORM** MAINT PERFORM MAINT FILE= 002 PAGES= 0001 LINES= 000018 **PERFORM** MAINT SYSTEM= LINUX(6.12.13-AMD64) PERFORM MAINT PERFORM MAINT SYSUSER= ACID PERFORM MAINT SYSID= ACID **PERFORM** MAINT PERFORM MAINT FORM= STANDARD **PERFORM** MAINT PERFORM MAINT CHAR= FONTMONO 17 PERFORM MAINT PERFORM PRT1403 VERSION= 1.3 MAINT М М AAA IIIIII NN TTTTTTT MM MM AAAAA IIIIII NN NN TTTTTTT MMM MMM AA II NNN NN TT AΑ II MMMM MMMM AA NNNN NN TT AA NN NN NN MM MMM AA II TT М MM AAAAAAAA NN NN MM ΙI NN MM AAAAAAAA MM IINN NNNN  $\mathsf{TT}$ MM MM AA AA IINN NNN TT TT MM MM AA AA IIIIII NN NN MM MM AA IIIIII NN TT 42 PPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 0000000 RRRRRRR PPPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 00000000 RRRRRRRR MM MM RR MMM PP EE RR RR FF 00 00 RR MMM PP EE RR RR FF 00 RR RR MMMM MMMM 00 PPPPPPPP EEEEEEEE RRRRRRRR FFFFFFF 00 OO RRRRRRRR MM MMM MM PPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 00 00 RRRRRRR MM RR RR RR FF 00 00 RR MM MM PP FF EE RRRR MM MM RR 00 00 RR EEEEEEEE RR RR FF 00000000 RR MM MM EEEEEEEE RR RR FF RR MM 0000000 MM 00000 00000 222222 0000000 0000000 22222222 00 22 22 00 00 00 22 00 00 00 00 00 00 00 00 22 00 00 00 00 22 22 00 00 00 00 00 00 00 22 2222222 0000000 0000000 00000 00000 22222222 

DATE: 26-02-2025 12:04:03

USER: MAINT

JOB: PERFORM

```
program performance_test
             implicit none
             integer :: i, total
             real(8) :: start_time, end_time
             total = 0
             call cpu_time(start_time)
             do i = 1, 10000000
total = total + i
             end do
             call cpu_time(end_time)
print *, "Fortran: The sum is ", total
print *, "Fortran: Time taken = ", end_time - start_time
end program performance_test
                                                                                                                                                                                                                                     20
21
22
23
24
25
26
27
                                                                                                                                                                                                                                     28
29
30
31
32
33
34
35
36
37
38
39
40
                                                                                                                                                                                                                                     41
42
43
                                                                                                                                                                                                                                     43
44
45
46
47
                                                                                                                                                                                                                                     48
49
50
51
52
53
54
55
56
57
58
59
```

PAGE: 0001

DATE: 26-02-2025 12:04:03 USER: MAINT JOB: PERFORM PAGE: 0000 FILE NAME/TYPE= STDIN **PERFORM** MAINT PERFORM MAINT MAINT PERFORM CREATION DATE/TIME= 26-02-2025 12:04:03 **PERFORM** MAINT PERFORM MAINT FILE= 003 PAGES= 0001 LINES= 000022 **PERFORM** MAINT SYSTEM= LINUX(6.12.13-AMD64) PERFORM MAINT PERFORM MAINT SYSUSER= ACID PERFORM MAINT SYSID= ACID **PERFORM** MAINT PERFORM MAINT FORM= STANDARD **PERFORM** MAINT PERFORM MAINT CHAR= FONTMONO 17 PERFORM MAINT PERFORM PRT1403 VERSION= 1.3 MAINT М М AAA IIIIII NN TTTTTTT MM MM AAAAA IIIIII NN NN TTTTTTT MMM MMM AA II NNN NN TT AΑ II MMMM MMMM AA NNNN NN TT AA NN NN NN MM MMM AA II TT М MM AAAAAAAA NN NN MM ΙI NN MM AAAAAAAA MM IINN NNNN  $\mathsf{TT}$ MM MM AA AA IINN NNN TT TT MM MM AA AA IIIIII NN NN MM MM AA IIIIII NN TT 42 PPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 0000000 RRRRRRR PPPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 00000000 RRRRRRRR MM MM RR MMM PP EE RR RR FF 00 00 RR MMM PP EE RR RR FF 00 RR RR MMMM MMMM 00 PPPPPPPP EEEEEEEE RRRRRRRR FFFFFFF 00 OO RRRRRRRR MM MMM MM PPPPPPP EEEEEEEE RRRRRRR FFFFFFFF 00 00 RRRRRRR MM RR RR RR FF 00 00 RR MM MM PP FF EE RR RRMM MM RR 00 00 RR EEEEEEEE RR RR FF 00000000 RR MM MM EEEEEEEE RR RR FF 0000000 RR MM MM 00000 00000 3333333 0000000 0000000 33333333 00 00 00 00 33 33 33 00 00 00 00 00 00 00 00 333 333 00 00 00 00 00 00 33 00 00 00 00 00 33 33 33333333 0000000 0000000 00000 00000 3333333 

DATE: 26-02-2025 12:04:03

USER: MAINT

JOB: PERFORM

```
#include <stdio.h>
2 #include <time.h>
     int main() {
          long i;
long total = 0;
          clock_t start_time, end_time;
          start_time = clock();
          for (i = 1; i < 10000000; i++) {
               total += i;
          end_time = clock();
                                                                                                                                                                                  20
21
22
23
24
25
26
27
          printf("C: The sum is %ld\n", total);
printf("C: Time taken = %lf seconds\n", (double)(end_time - start_time) / CLOCKS_PER_SEC);
          return 0;
                                                                                                                                                                                  28
29
30
31
32
33
34
35
                                                                                                                                                                                   41
42
43
```

PAGE: 0001