

Program

```
cat <<'EOF'> getrusage_example.c
#include <stdio.h>
#include <stdlib.h>
#include <sys/resource.h>
#include <time.h>
int main(){
    struct rusage usage;
    int count=0;
    long long max_count=1e9;
    printf("System Date And Time:\n");
    system("date");
    getrusage (RUSAGE_SELF, &usage);
    printf("Before Loop\n");
    printf("UserTime: %ld.%06ld Seconds\n", usage.ru_utime.tv_sec,usage.ru_utime.tv_usec);
    printf("SystemTime: %ld.%06ld Seconds\n", usage.ru_stime.tv_sec,usage.ru_stime.tv_usec);
    for(long long i=0;i<max_count;i++){
        count++;
    }
    getrusage(RUSAGE_SELF, &usage);
    printf("After loop\n");
    printf("User Time: %ld.%06ld Seconds\n", usage.ru_utime.tv_sec,usage.ru_utime.tv_usec);
    printf("System Time: %ld.%06ld Seconds\n", usage.ru_stime.tv_sec,usage.ru_stime.tv_usec);
    return 0;
}

EOF

gcc -o getrusage_example getrusage_example.c
./getrusage_example
```

Sample run of the program

```
s23a40@Server-2:~/blab$ nano ex10.sh
s23a40@Server-2:~/blab$ bash ex10.sh
System Date And Time:
Friday 24 January 2025 03:12:35 PM IST
Before Loop
User Time: 0.000532 Seconds
System Time: 0.000000 Seconds
After loop
User Time: 1.846007 Seconds
System Time: 0.004004 Seconds
s23a40@Server-2:~/blab$ █
```