Bilgisayar Mühendisliği Bölümü

Sistem Programlama Proje Raporu

Öğrenci Ad-Soyad: Mohamad Walid Lehfi

Öğrenci Numarası : 210309814

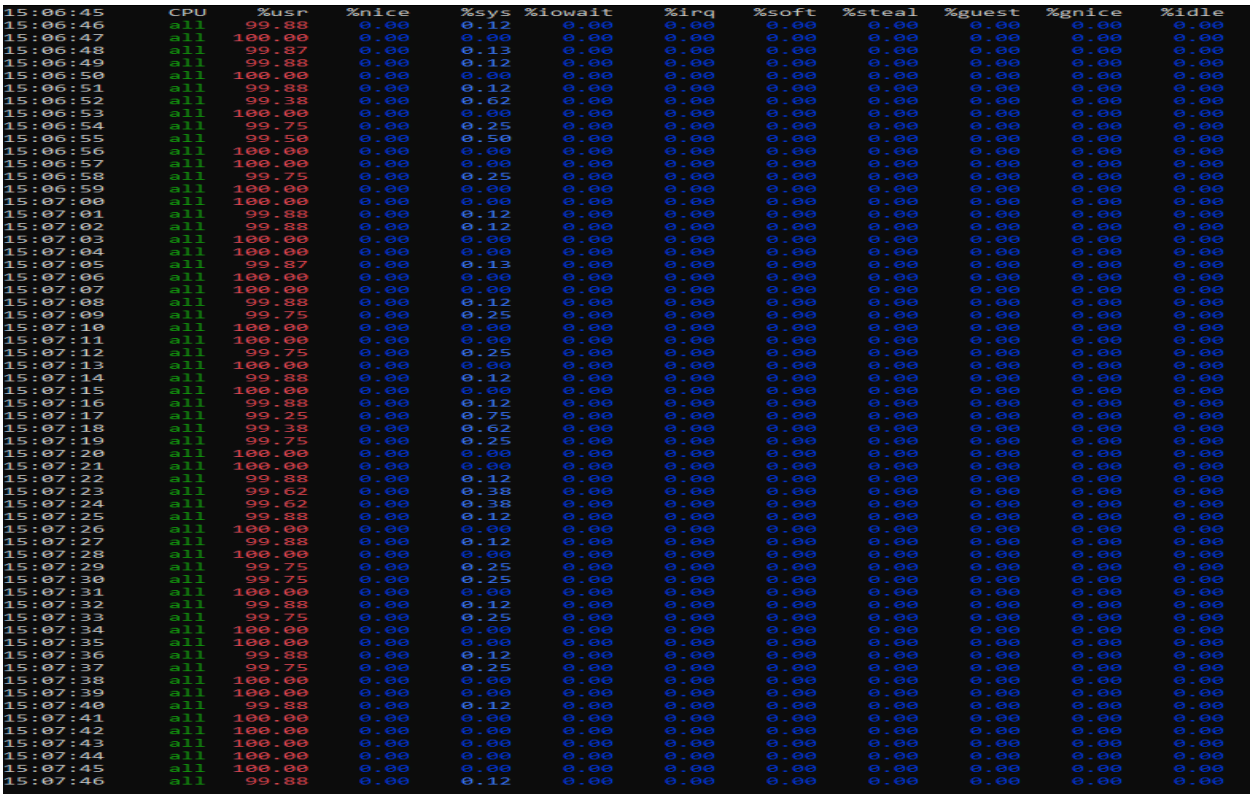
Gprof Çıktısı:

```
Flat profile:

Each sample counts as 0.01 seconds.
  %   cumulative   self              self     total
 time   seconds   seconds    calls  ms/call  ms/call  name
 71.15      0.37     0.37   651497     0.00     0.00  recursiveReplace(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > const
 19.23      0.47     0.10  6451383     0.00     0.00  frame_dummy
  7.69      0.51     0.04        8     5.00    65.00  processChunk(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > const&,
  1.92      0.52     0.01        8     1.25     1.25  vectorizedReplace(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, int&)
  0.00      0.52     0.00        4     0.00     0.00  void std::vector<std::thread, std::allocator<std::thread> >::_M_realloc_insert<void (&)(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, std::__cxx11:
:__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > >&&, char const (&) [6], char const (&) [6], std::reference_wrapper<int>&&, std::reference_wrapper<int>&&)
  0.00      0.52     0.00        2     0.00     0.00  std::_Vector_base<int, std::allocator<int> >::~_Vector_base()
  0.00      0.52     0.00        2     0.00     0.00  std::vector<int, std::allocator<int> >::vector(unsigned long, int const&, std::allocator<int> const&)
  0.00      0.52     0.00        1     0.00     0.00  std::vector<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::allocator<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<cha
  0.00      0.52     0.00        1     0.00     0.00  std::vector<std::thread, std::allocator<std::thread> >::~vector()

 %         the percentage of the total running time of the
time       program used by this function.

cumulative a running sum of the number of seconds accounted
 seconds   for by this function and those listed above it.

 self      the number of seconds accounted for by this
seconds    function alone.  This is the major sort for this
           listing.

calls      the number of times this function was invoked, if
           this function is profiled, else blank.

 self      the average number of milliseconds spent in this
ms/call    function per call, if this function is profiled,
           else blank.

 total     the average number of milliseconds spent in this
ms/call    function and its descendents per call, if this
           function is profiled, else blank.

name       the name of the function.  This is the minor sort
           for this listing. The index shows the location of
           the function in the gprof listing. If the index is
           in parenthesis it shows where it would appear in
           the gprof listing if it were to be printed.

Copyright (C) 2012-2022 Free Software Foundation, Inc.

Copying and distribution of this file, with or without modification,
are permitted in any medium without royalty provided the copyright
notice and this notice are preserved.

                     Call graph (explanation follows)


granularity: each sample hit covers 4 byte(s) for 1.92% of 0.52 seconds
```

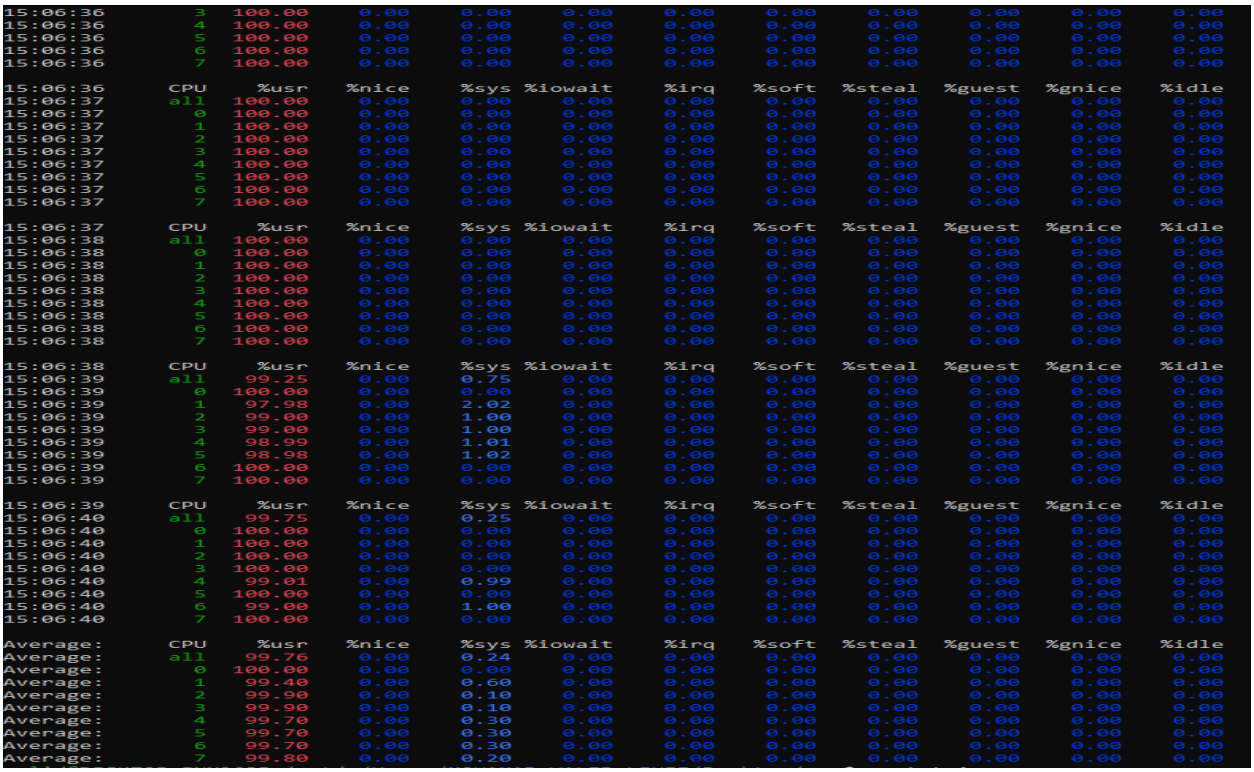
```
Flat profile:

Each sample counts as 0.01 seconds.
  %   cumulative   self              self     total
 time   seconds   seconds    calls  ms/call  ms/call  name
 48.39      0.30     0.30        8    37.50    50.94  recursiveReplace(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > cons
 17.74      0.41     0.11  5895821     0.00     0.00  frame_dummy
  9.68      0.47     0.06                             processChunk(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > const&,
  9.68      0.53     0.06                             vectorizedReplace(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, int&)
  6.45      0.57     0.04  4409412     0.00     0.00  __do_global_dtors_aux
  6.45      0.61     0.04                             _init
  1.61      0.62     0.01                             main
  0.00      0.62     0.00        4     0.00     0.00  std::_Vector_base<int, std::allocator<int> >::~_Vector_base()
  0.00      0.62     0.00        3     0.00   135.83  std::thread::_State_impl<std::thread::_Invoker<std::tuple<void (*)(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, std::__cxx11::basic_string<char,
  0.00      0.62     0.00        2     0.00     0.00  std::vector<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::allocator<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<ch
  0.00      0.62     0.00        1     0.00     0.00  std::vector<int, std::allocator<int> >::vector(unsigned long, int const&, std::allocator<int> const&)

 %         the percentage of the total running time of the
time       program used by this function.

cumulative a running sum of the number of seconds accounted
 seconds   for by this function and those listed above it.

 self      the number of seconds accounted for by this
seconds    function alone.  This is the major sort for this
           listing.

calls      the number of times this function was invoked, if
           this function is profiled, else blank.

 self      the average number of milliseconds spent in this
ms/call    function per call, if this function is profiled,
           else blank.

 total     the average number of milliseconds spent in this
ms/call    function and its descendents per call, if this
           function is profiled, else blank.

name       the name of the function.  This is the minor sort
           for this listing. The index shows the location of
           the function in the gprof listing. If the index is
           in parenthesis it shows where it would appear in
           the gprof listing if it were to be printed.

Copyright (C) 2012-2022 Free Software Foundation, Inc.

Copying and distribution of this file, with or without modification,
are permitted in any medium without royalty provided the copyright
notice and this notice are preserved.

                     Call graph (explanation follows)
```

```
Flat profile:

Each sample counts as 0.01 seconds.
  %   cumulative   self              self     total
 time   seconds   seconds    calls  ms/call  ms/call  name
 30.16      0.19     0.19        8    23.75    47.73  recursiveReplace(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > const
 28.57      0.37     0.18  6275911     0.00     0.00  frame_dummy
 12.70      0.45     0.08  4620375     0.00     0.00  register_tm_clones
 12.70      0.53     0.08                             vectorizedReplace(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, int&)
  6.35      0.57     0.04                             __do_global_dtors_aux
  4.76      0.60     0.03        8     3.75    12.27  processChunk(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > const&,
  4.76      0.63     0.03                             _init
  0.00      0.63     0.00        4     0.00     0.00  std::vector<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::allocator<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<cha
  0.00      0.63     0.00        3     0.00   160.00  std::thread::_State_impl<std::thread::_Invoker<std::tuple<void (*)(std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >&, std::__cxx11::basic_string<char, s
  0.00      0.63     0.00        3     0.00     0.00  std::vector<int, std::allocator<int> >::vector(unsigned long, int const&, std::allocator<int> const&)

 %         the percentage of the total running time of the
time       program used by this function.

cumulative a running sum of the number of seconds accounted
 seconds   for by this function and those listed above it.

 self      the number of seconds accounted for by this
seconds    function alone.  This is the major sort for this
           listing.

calls      the number of times this function was invoked, if
           this function is profiled, else blank.

 self      the average number of milliseconds spent in this
ms/call    function per call, if this function is profiled,
           else blank.

 total     the average number of milliseconds spent in this
ms/call    function and its descendents per call, if this
           function is profiled, else blank.

name       the name of the function.  This is the minor sort
           for this listing. The index shows the location of
           the function in the gprof listing. If the index is
           in parenthesis it shows where it would appear in
           the gprof listing if it were to be printed.

Copyright (C) 2012-2022 Free Software Foundation, Inc.

Copying and distribution of this file, with or without modification,
are permitted in any medium without royalty provided the copyright
notice and this notice are preserved.

                     Call graph (explanation follows)


granularity: each sample hit covers 4 byte(s) for 1.59% of 0.63 seconds
```

Mpstat Çıktısı:



15:06:45	CPU	%usr	%nice	%sys	%iowait	%irq	%soft	%steal	%guest	%gnice	%idle
15:06:46	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:47	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:48	all	99.87	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:49	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:50	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:51	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:52	all	99.38	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:53	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:54	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:55	all	99.50	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:56	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:57	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:58	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:59	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:00	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:01	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:02	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:03	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:04	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:05	all	99.87	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:06	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:07	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:08	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:09	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:10	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:11	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:12	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:13	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:14	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:15	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:16	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:17	all	99.25	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:18	all	99.38	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:19	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:20	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:21	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:22	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:23	all	99.62	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:24	all	99.62	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:25	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:26	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:27	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:28	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:29	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:30	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:31	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:32	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:33	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:34	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:35	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:36	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:37	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:38	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:39	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:40	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:41	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:42	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:43	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:44	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:45	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:07:46	all	99.88	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00



15:06:36	3	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:36	4	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:36	5	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:36	6	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:36	7	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:36	CPU	%usr	%nice	%sys	%iowait	%irq	%soft	%steal	%guest	%gnice	%idle
15:06:37	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	1	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	2	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	3	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	4	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	5	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	6	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	7	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:37	CPU	%usr	%nice	%sys	%iowait	%irq	%soft	%steal	%guest	%gnice	%idle
15:06:38	all	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	1	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	2	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	3	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	4	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	5	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	6	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	7	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:38	CPU	%usr	%nice	%sys	%iowait	%irq	%soft	%steal	%guest	%gnice	%idle
15:06:39	all	99.25	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	1	97.98	0.00	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	2	99.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	3	99.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	4	98.99	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	5	98.98	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	6	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	7	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:39	CPU	%usr	%nice	%sys	%iowait	%irq	%soft	%steal	%guest	%gnice	%idle
15:06:40	all	99.75	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:40	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:40	1	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:40	2	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:40	3	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:40	4	99.01	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:40	5	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:40	6	99.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:06:40	7	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	CPU	%usr	%nice	%sys	%iowait	%irq	%soft	%steal	%guest	%gnice	%idle
Average:	all	99.76	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	1	99.40	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	2	99.90	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	3	99.90	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	4	99.70	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	5	99.70	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	6	99.70	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average:	7	99.80	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Valgrind Çıktısı: