```
ravish@ravish-VirtualBox:~/Desktop/Local Search Engine 15 03 2022 final/Local Search Engine/make$ make valgrind
valgrind --leak-check=full -v ../bin/exe
==5067== Memcheck, a memory error detector
==5067== Copyright (C) 2002-2017, and GNU GPL'd, by Julian Seward et al.
==5067== Using Valgrind-3.15.0-608cb11914-20190413 and LibVEX; rerun with -h for copyright info
==5067== Command: ../bin/exe
==5067==
 -5067-- Valgrind options:
 -5067--
          --leak-check=full
 -5067--
 -5067-- Contents of /proc/version:
         Linux version 5.13.0-30-generic (buildd@lcy02-amd64-003) (gcc (Ubuntu 9.3.0-17ubuntu1~20.04) 9.3.0, GNU ld (GNU Binutils for Ubuntu) 2.34) #33~20.04.1-Ubuntu SMP Mon Feb 7 14:25:10 UTC 2022
 -5067--
 -5067--
 -5067-- Arch and hwcaps: AMD64, LittleEndian, amd64-cx16-lzcnt-rdtscp-sse3-ssse3-avx-avx2-rdrand
 -5067-- Page sizes: currently 4096, max supported 4096
 -5067-- Valgrind library directory: /usr/lib/x86 64-linux-gnu/valgrind
 -5067-- Reading syms from /home/ravish/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/bin/exe
 -5067-- Reading syms from /usr/lib/x86_64-linux-gnu/ld-2.31.so
 -5067-- Considering /usr/lib/x86 64-linux-gnu/ld-2.31.so ..
           .. CRC mismatch (computed 0306b78c wanted 8d362b37)
 -5067--
          Considering /lib/x86 64-linux-anu/ld-2.31.so ...
 -5067--
           .. CRC mismatch (computed 0306b78c wanted 8d362b37)
 -5067--
          Considering /usr/lib/debug/lib/x86_64-linux-gnu/ld-2.31.so ...
 - 5067 - -
 - 5067 - -
          .. CRC is valid
 -5067-- Reading syms from /usr/lib/x86 64-linux-gnu/valgrind/memcheck-amd64-linux
 - 5067 - -
           object doesn't have a symbol table
 -5067--
            object doesn't have a dynamic symbol table
 -5067-- Scheduler: using generic scheduler lock implementation.
 -5067-- Reading suppressions file: /usr/lib/x86 64-linux-gnu/valgrind/default.supp
==5067== embedded gdbserver: reading from /tmp/vgdb-pipe-from-vgdb-to-5067-by-ravish-on-???
==5067== embedded qdbserver: writing to /tmp/vqdb-pipe-to-vqdb-from-5067-by-ravish-on-???
==5067== embedded gdbserver: shared mem /tmp/vgdb-pipe-shared-mem-vgdb-5067-by-ravish-on-???
==5067==
==5067== TO CONTROL THIS PROCESS USING vgdb (which you probably
==5067== don't want to do, unless you know exactly what you're doing,
==5067== or are doing some strange experiment):
==5067== /usr/lib/x86 64-linux-gnu/valgrind/../../bin/vgdb --pid=5067 ...command...
==5067==
==5067== TO DEBUG THIS PROCESS USING GDB: start GDB like this
==5067== /path/to/gdb ../bin/exe
==5067== and then give GDB the following command
==5067== target remote | /usr/lib/x86_64-linux-gnu/valgrind/../../bin/vgdb --pid=5067
==5067== --pid is optional if only one valgrind process is running
==5067==
--5067-- REDIR: 0x4022e10 (ld-linux-x86-64.so.2:strlen) redirected to 0x580c9ce2 (???)
--5067-- REDIR: 0x4022be0 (ld-linux-x86-64.so.2:index)    redirected to 0x580c9cfc (???)
```

```
-סביס-- אבטוא: מאמשפישבים (ננטכ.50.0:__5נוכףy_מעאב) ופטנופכנפט נט מאמססומשט (5נוכףy)
 -5198-- REDIR: 0x49e2ff0 (libc.so.6:__strchr_avx2) redirected to 0x483ebf0 (index)
 -5198-- REDIR: 0x49e3aa0 (libc.so.6: strcat avx2) redirected to 0x483ec20 (strcat)
                       Welcome to Local Search Engine(LSE)
1. Search by word/sentence
2. Search by filename
3. Open file with absolute path
4. Ouit
Choose an option(1-4):1
Enter search string/word:
Local
Do you want to search at any specific locations?(y/n)
Please provide path
/home/ravish/Desktop
Searching..
--5198-- REDIR: 0x4916410 (libc.so.6: strstr sse2 unaligned) redirected to 0x4843c20 (strstr)
--5198-- REDIR: 0x49de9b0 (libc.so.6:__strspn_sse42) redirected to 0x4843ef0 (strspn)
--5198-- REDIR: 0x49de730 (libc.so.6: strcspn sse42) redirected to 0x4843e10 (strcspn)
File 0 --> file2 1.txt path:[/home/ravish/Desktop/file2 1.txt]
File 1 --> function.h path:[/home/ravish/Desktop/Local Search Engine 15 03 2022 final/Local Search Engine/inc/function.h]
File 2 --> testfunction.c path:[/home/ravish/Desktop/Local Search Engine 15 03 2022 final/Local Search Engine/test/testfunction.c]
File 3 --> found.c path:[/home/ravish/Desktop/Local Search Engine 15 03 2022 final/Local Search Engine/src/found.c]
File 4 --> function definition.c path:[/home/ravish/Desktop/Local Search Engine 15 03 2022 final/Local Search Engine/src/function definition.c]
File 5 --> file2.txt path:[/home/ravish/Desktop/Local Search Engine 15 03 2022 final/Local Search Engine/src/text/file2.txt]
File 6 --> testfunction.c path:[/home/ravish/Desktop/Local Search Engine/test/testfunction.c]
File 7 --> function.h path:[/home/ravish/Desktop/Local Search Engine/include/function.h]
File 8 --> found.c path:[/home/ravish/Desktop/Local Search Engine/source/found.c]
File 9 --> function definition.c path:[/home/ravish/Desktop/Local Search Engine/source/function definition.c]
File 10 --> file2.txt path:[/home/ravish/Desktop/Local Search Engine/source/text/file2.txt]
do you want to open any file!!(y/n)
11 file(s) found
Select the file number which you want to open
Please enter file index number
```

```
File 3 --> found.c path:[/home/ravish/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/src/found.c]
File 4 --> function_definition.c path:[/home/ravish/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/src/function_definition.c]
File 5 --> file2.txt path:[/home/ravish/Desktop/Local Search Engine 15 03 2022 final/Local Search Engine/src/text/file2.txt]
File 6 --> testfunction.c path:[/home/ravish/Desktop/Local_Search_Engine/test/testfunction.c]
File 7 --> function.h path:[/home/ravish/Desktop/Local Search Engine/include/function.h]
File 8 --> found.c path:[/home/ravish/Desktop/Local Search Engine/source/found.c]
File 9 --> function definition.c path:[/home/ravish/Desktop/Local Search Engine/source/function definition.c]
File 10 --> file2.txt path:[/home/ravish/Desktop/Local Search Engine/source/text/file2.txt]
do you want to open any file!!(y/n)
11 file(s) found
Select the file number which you want to open
Please enter file index number
File opened!
This is some info about Local file search
Do you want to open other file?(y/n)n
                         Welcome to Local Search Engine(LSE)
1. Search by word/sentence
2. Search by filename
3. Open file with absolute path
4. Quit
Choose an option(1-4):4
--5198-- Discarding syms at 0x4e535c0-0x4e59a1c in /usr/lib/x86 64-linux-gnu/libnss files-2.31.so (have dinfo 1)
==5198==
==5198== HEAP SUMMARY:
==5198==
             in use at exit: 0 bytes in 0 blocks
           total heap usage: 230 allocs, 230 frees, 1,563,896 bytes allocated
==5198==
==5198==
==5198== All heap blocks were freed -- no leaks are possible
==5198==
==5198== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
ravish@ravish-VirtualBox:~/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/make$
```

```
1. Search by word/sentence
2. Search by filename
3. Open file with absolute path
4. Ouit
Choose an option(1-4):1
Enter search string/word:
team
Do you want to search at any specific locations?(v/n)
Searching..
 /home/ravish/
 --5210-- REDIR: 0x4916410 (libc.so.6: strstr sse2 unaligned) redirected to 0x4843c20 (strstr)
--5210-- REDIR: 0x49de9b0 (libc.so.6:_strspn_sse42) redirected to 0x4843ef0 (strspn)
--5210-- REDIR: 0x49de9b0 (libc.so.6:_strspn_sse42) redirected to 0x4843ef0 (strspn)
--5210-- REDIR: 0x49de730 (libc.so.6:_strcspn_sse42) redirected to 0x4843ef0 (strspn)
--5210-- REDIR: 0x49de730 (libc.so.6:_strcspn_sse42) redirected to 0x4843ef0 (strspn)
--5210-- REDIR: 0x49de730 (libc.so.6:_strspn_sse42) redirected to 0x4843ef0 (strspn)
File 1 --> file3.txt path: //home/ravish/Desktop/Local Search Engine 15 03 2022 final/Local Search Engine/src/text/file3.txt]
File 2 --> file3.txt path: [/home/ravish/Desktop/Local Search Engine/source/text/file3.txt]
File 3 --> file3 1.txt path:[/home/ravish/Desktop/file3 1.txt]
do you want to open any file!!(y/n)
Invalid choice!!
                                      Welcome to Local Search Engine(LSE)
1. Search by word/sentence
2. Search by filename
3. Open file with absolute path
4. Quit
Choose an option(1-4):4
  --5210-- Discarding syms at 0x4e535c0-0x4e59a1c in /usr/lib/x86_64-linux-gnu/libnss_files-2.31.so (have_dinfo 1)
 ==5210==
 ==5210== HEAP SUMMARY:
 ==5210==
                     in use at exit: 0 bytes in 0 blocks
 ==5210== total heap usage: 327 allocs, 327 frees, 2,973,066 bytes allocated
 ==5210==
 ==5210== All heap blocks were freed -- no leaks are possible
 ==5210==
==5210== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
 ravish@ravish-VirtualBox:~/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/make$
```

Welcome to Local Search Engi	ine(LSE)
1. Search by word/sentence 2. Search by filename 3. Open file with absolute path 4. Quit	
Choose an option(1-4):1	
Enter search string/word: team	
Do you want to search at any specific locations?(y/r	
Searching /home/ravish/5228 REDIR: 0x4916410 (libc.so.6:strstr_sse2_t5228 REDIR: 0x49de9b0 (libc.so.6:strspn_sse42_t5228 REDIR: 0x49de730 (libc.so.6:strcspn_sse42_t5228 REDIR: 0x49de730 (libc.so.6:strcspn_sse42_t File 0> file3.txt path:[/home/ravish/Desktop/Locat File 1> file3.txt path:[/home/ravish/Desktop/Locat File 2> file3.txt path:[/home/ravish/Desktop/file 3> file3_1.txt path:[/home/ravish/Deskt) redirected to 0x4843ef0 (strspn) 2) redirected to 0x4843e10 (strcspn) n_Engine_15_03_2022/Local_Search_Engine/src/text/file3.txt] al_Search_Engine_15_03_2022_final/Local_Search_Engine/src/text/file3.txt] al_Search_Engine/source/text/file3.txt]
do you want to open any file!!(y/n) y	
4 file(s) found	
Select the file number which you want to open Please enter file index number 2	
File opened!	
This is our team.	
Do you want to open other file?(y/n)n	
Welcome to Local Search Engi	

```
/home/ravish/
/nome/ravish/
--5228-- REDIR: 0x4916410 (libc.so.6:__strstr_sse2_unaligned) redirected to 0x4843c20 (strstr)
--5228-- REDIR: 0x49de9b0 (libc.so.6:__strspn_sse42) redirected to 0x4843ef0 (strspn)
--5228-- REDIR: 0x49de730 (libc.so.6:__strcspn_sse42) redirected to 0x4843ef0 (strcspn)
File 0 --> file3.txt path:[/home/ravish/Local_Search_Engine_15_03_2022/Local_Search_Engine/src/text/file3.txt]
File 1 --> file3.txt path:[/home/ravish/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/src/text/file3.txt]
File 2 --> file3.txt path:[/home/ravish/Desktop/Local_Search_Engine/source/text/file3.txt]
File 3 --> file3_1.txt path:[/home/ravish/Desktop/file3_1.txt]
do you want to open any file!!(y/n)
 file(s) found
Select the file number which you want to open
 lease enter file index number
File opened!
This is our team.
Do you want to open other file?(y/n)n
                                  Welcome to Local Search Engine(LSE)
   Search by word/sentence
   Search by filename
   Open file with absolute path
 . Ouit
Choose an option(1-4):4
 -5228-- Discarding syms at 0x4e535c0-0x4e59a1c in /usr/lib/x86 64-linux-gnu/libnss files-2.31.so (have dinfo 1)
 =5228==
 =5228== HEAP SUMMARY:
 =5228==
                  in use at exit: 0 bytes in 0 blocks
 =5228==
              total heap usage: 329 allocs, 329 frees, 2,977,634 bytes allocated
 =5228==
==5228== All heap blocks were freed -- no leaks are possible
 =5228==
==5228== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
 avish@ravish-VirtualBox:~/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/make$
```

Welcome to Local Search Engine(LSE)
1. Search by word/sentence 2. Search by filename 3. Open file with absolute path 4. Quit
Choose an option(1-4):2
Enter filename to be searched: file88.txt Searching file88.txt
Do you want to provide any absolute directory path?(y/n)
n 5232 REDIR: 0x4916410 (libc.so.6:strstr_sse2_unaligned) redirected to 0x4843c20 (strstr) 5232 REDIR: 0x49de9b0 (libc.so.6:strspn_sse42) redirected to 0x4843ef0 (strspn) 5232 REDIR: 0x49de730 (libc.so.6:strcspn_sse42) redirected to 0x4843e10 (strcspn) File 0> file88.txt path:[/home/ravish/file88.txt]
do you want to open any file!!(y/n) y
1 file(s) found
Select the file number which you want to open Please enter file index number 0
File opened!
This is Shailesh!
Do you want to open other file?(y/n)n
Welcome to Local Search Engine(LSE)
1. Search by word/sentence 2. Search by filename

```
Do you want to provide any absolute directory path?(y/n)
--5232-- REDIR: 0x4916410 (libc.so.6:__strstr_sse2_unaligned) redirected to 0x4843c20 (strstr)
 --5232-- REDIR: 0x49de9b0 (libc.so.6:__strspn_sse42) redirected to 0x4843ef0 (strspn)
 --5232-- REDIR: 0x49de730 (libc.so.6:__strcspn_sse42) redirected to 0x4843e10 (strcspn)
File 0 --> file88.txt path:[/home/ravish/file88.txt]
do you want to open any file!!(y/n)
1 file(s) found
Select the file number which you want to open
Please enter file index number
File opened!
This is Shailesh!
Do you want to open other file?(y/n)n
                        Welcome to Local Search Engine(LSE)
1. Search by word/sentence
2. Search by filename
3. Open file with absolute path
4. Quit
--5232-- Discarding syms at 0x4e535c0-0x4e59a1c in /usr/lib/x86_64-linux-gnu/libnss_files-2.31.so (have_dinfo 1)
==5232==
==5232== HEAP SUMMARY:
             in use at exit: 0 bytes in 0 blocks
==5232==
==5232== total heap usage: 241 allocs, 241 frees, 2,786,980 bytes allocated
==5232== All heap blocks were freed -- no leaks are possible
==5232==
==5232== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
ravish@ravish-VirtualBox:~/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/make$
```


5245 REDIR: 0x49e3aa0 (libc.so.6:strcat_avx2) redirected to 0x483ec20 (strcat)
Welcome to Local Search Engine(LSE)
1. Search by word/sentence 2. Search by filename 3. Open file with absolute path 4. Quit
Choose an option(1-4):2
Enter filename to be searched: file4_1.txt Searching file4_1.txt
Do you want to provide any absolute directory path?(y/n) y Enter absolute path: \$:/home/ravish/Desktop
5245 REDIR: 0x4916410 (libc.so.6:strstr_sse2_unaligned) redirected to 0x4843c20 (strstr)5245 REDIR: 0x49de9b0 (libc.so.6:strspn_sse42) redirected to 0x4843ef0 (strspn)5245 REDIR: 0x49de730 (libc.so.6:strcspn_sse42) redirected to 0x4843e10 (strcspn) File 0> file4_1.txt path:[/home/ravish/Desktop/file4_1.txt]
do you want to open any file!!(y/n) y
1 file(s) found
Select the file number which you want to open Please enter file index number 0
File opened!
Hello PeersWe the capgemini
Do you want to open other file?(y/n)n
Welcome to Local Search Engine(LSE)

```
Enter absolute path:
S:/home/ravish/Desktop
 --5245-- REDIR: 0x4916410 (libc.so.6: strstr sse2 unaligned) redirected to 0x4843c20 (strstr)
--5245-- REDIR: 0x49de9b0 (libc.so.6: strspn sse42) redirected to 0x4843ef0 (strspn)
--5245-- REDIR: 0x49de730 (libc.so.6: strcspn sse42) redirected to 0x4843e10 (strcspn)
File 0 --> file4 1.txt path:[/home/ravish/Desktop/file4 1.txt]
do you want to open any file!!(y/n)
1 file(s) found
Select the file number which you want to open
Please enter file index number
File opened!
Hello Peers ...We the capgemini
Do you want to open other file?(y/n)n
                        Welcome to Local Search Engine(LSE)
1. Search by word/sentence
2. Search by filename
3. Open file with absolute path
4. Quit
Choose an option(1-4):4
 --5245-- Discarding syms at 0x4e535c0-0x4e59a1c in /usr/lib/x86_64-linux-gnu/libnss_files-2.31.so (have_dinfo 1)
==5245==
==5245== HEAP SUMMARY:
             in use at exit: 0 bytes in 0 blocks
==5245==
==5245==
          total heap usage: 156 allocs, 156 frees, 1,429,340 bytes allocated
==5245==
==5245== All heap blocks were freed -- no leaks are possible
==5245==
==5245== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
ravish@ravish-VirtualBox:~/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/make$
```

```
4. Quit
Choose an option(1-4):
Invalid choice please select among(1-4) only...
                       Welcome to Local Search Engine(LSE)
1. Search by word/sentence
2. Search by filename
3. Open file with absolute path
4. Ouit
Choose an option(1-4):3
Enter abolute path to the file:
$:/home/ravish/Desktop/testing1.txt
File opened!
Hello! This file is for testing purpose.
Using valgrind
Checking for memory errors.
                       Welcome to Local Search Engine(LSE)
1. Search by word/sentence
2. Search by filename
3. Open file with absolute path
4. Ouit
Choose an option(1-4):4
--5250-- Discarding syms at 0x4e535c0-0x4e59a1c in /usr/lib/x86 64-linux-gnu/libnss files-2.31.so (have dinfo 1)
==5250==
==5250== HEAP SUMMARY:
            in use at exit: 0 bytes in 0 blocks
==5250==
           total heap usage: 49 allocs, 49 frees, 19,234 bytes allocated
==5250==
==5250==
==5250== All heap blocks were freed -- no leaks are possible
==5250==
==5250== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
ravish@ravish-VirtualBox:~/Desktop/Local_Search_Engine_15_03_2022_final/Local_Search_Engine/make$
```