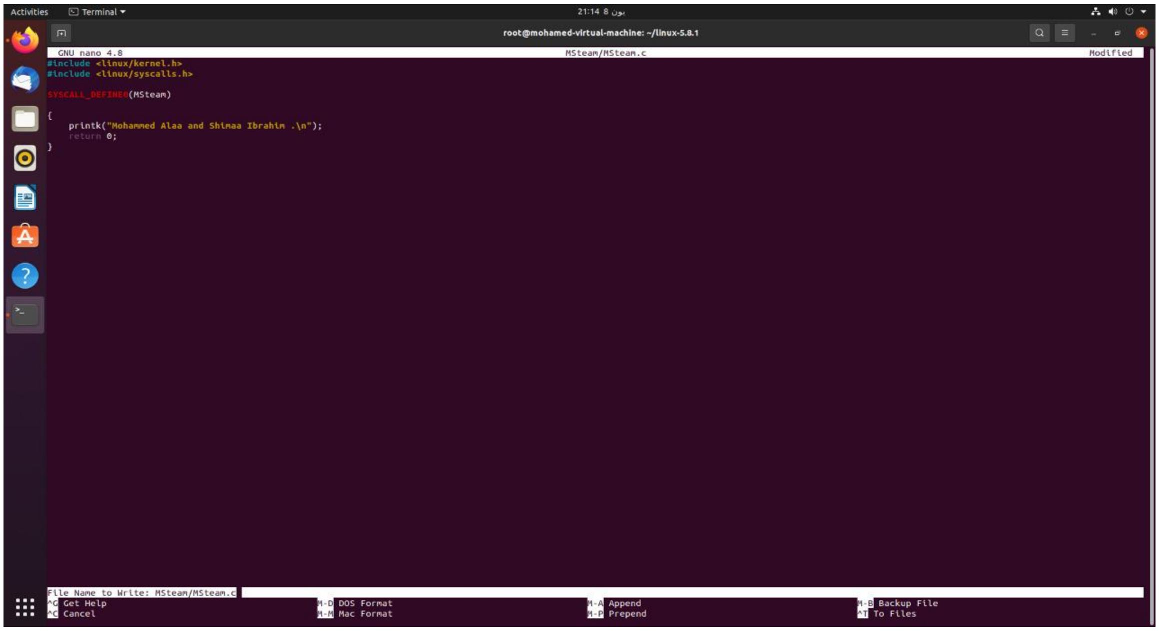
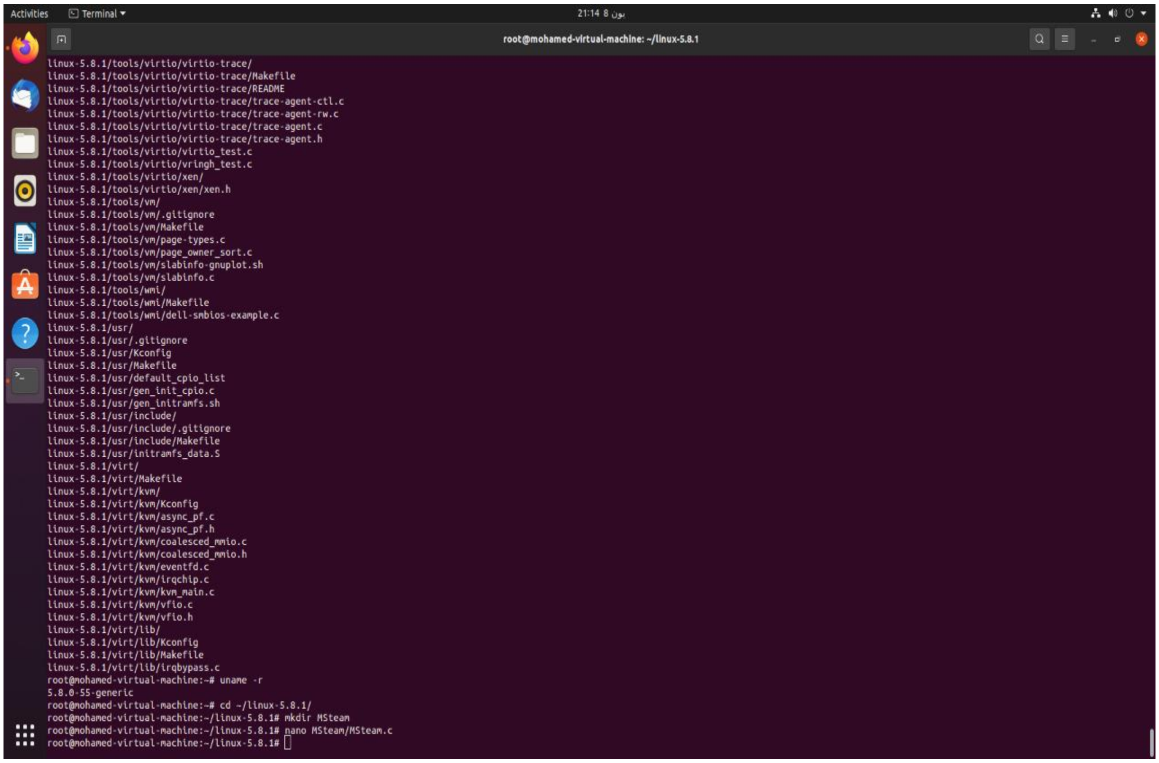
OS Project



```
  GNU nano 4.8                          MSteam/MSteam.c                          Modified
#include <linux/kernel.h>
#include <linux/syscalls.h>

SYSCALL_DEFINE0(MSteam)

{
    printk("Mohammed Alaa and Shimaa Ibrahim .\n");
    return 0;
}
```

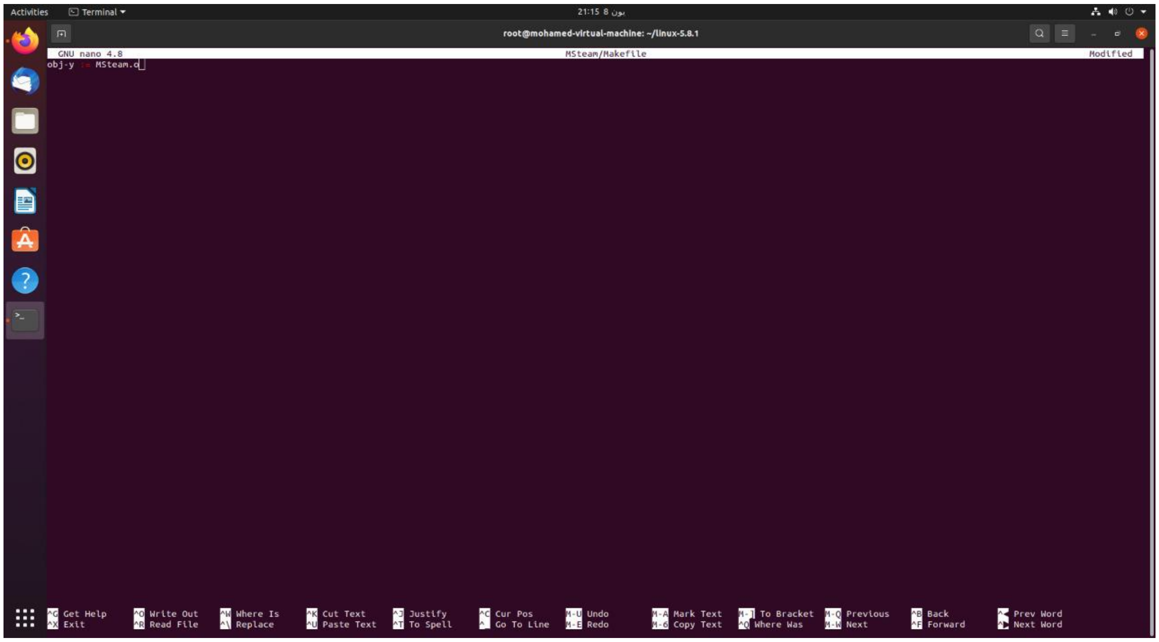
```
File Name to Write: MSteam/MSteam.c
^G Get Help          M-D DOS Format          M-A Append          M-B Backup File
^C Cancel            M-M Mac Format          M-P Prepend         ^T To Files
```

Our file team name be here



```
linux-5.8.1/tools/virtio/virtio-trace/
linux-5.8.1/tools/virtio/virtio-trace/Makefile
linux-5.8.1/tools/virtio/virtio-trace/README
linux-5.8.1/tools/virtio/virtio-trace/trace-agent-ctl.c
linux-5.8.1/tools/virtio/virtio-trace/trace-agent-rw.c
linux-5.8.1/tools/virtio/virtio-trace/trace-agent.c
linux-5.8.1/tools/virtio/virtio-trace/trace-agent.h
linux-5.8.1/tools/virtio/virtio_test.c
linux-5.8.1/tools/virtio/vringh_test.c
linux-5.8.1/tools/virtio/xen/
linux-5.8.1/tools/virtio/xen/xen.h
linux-5.8.1/tools/vm/
linux-5.8.1/tools/vm/.gitignore
linux-5.8.1/tools/vm/Makefile
linux-5.8.1/tools/vm/page-types.c
linux-5.8.1/tools/vm/page_owner_sort.c
linux-5.8.1/tools/vm/slabinfo-gnuplot.sh
linux-5.8.1/tools/vm/slabinfo.c
linux-5.8.1/tools/wmi/
linux-5.8.1/tools/wmi/Makefile
linux-5.8.1/tools/wmi/dell-smbios-example.c
linux-5.8.1/usr/
linux-5.8.1/usr/.gitignore
linux-5.8.1/usr/Kconfig
linux-5.8.1/usr/Makefile
linux-5.8.1/usr/default_cpio_list
linux-5.8.1/usr/gen_init_cpio.c
linux-5.8.1/usr/gen_initramfs.sh
linux-5.8.1/usr/include/
linux-5.8.1/usr/include/.gitignore
linux-5.8.1/usr/include/Makefile
linux-5.8.1/usr/initramfs_data.S
linux-5.8.1/virt/
linux-5.8.1/virt/Makefile
linux-5.8.1/virt/kvm/
linux-5.8.1/virt/kvm/Kconfig
linux-5.8.1/virt/kvm/async_pf.c
linux-5.8.1/virt/kvm/async_pf.h
linux-5.8.1/virt/kvm/coalesced_mmio.c
linux-5.8.1/virt/kvm/coalesced_mmio.h
linux-5.8.1/virt/kvm/eventfd.c
linux-5.8.1/virt/kvm/irqchip.c
linux-5.8.1/virt/kvm/kvm_main.c
linux-5.8.1/virt/kvm/vfio.c
linux-5.8.1/virt/kvm/vfio.h
linux-5.8.1/virt/lib/
linux-5.8.1/virt/lib/Kconfig
linux-5.8.1/virt/lib/Makefile
linux-5.8.1/virt/lib/irqbypass.c
root@mohamed-virtual-machine:~# uname -r
5.8.0-55-generic
root@mohamed-virtual-machine:~# cd ~/linux-5.8.1/
root@mohamed-virtual-machine:~/linux-5.8.1# mkdir MSteam
root@mohamed-virtual-machine:~/linux-5.8.1# nano MSteam/MSteam.c
root@mohamed-virtual-machine:~/linux-5.8.1# 
```

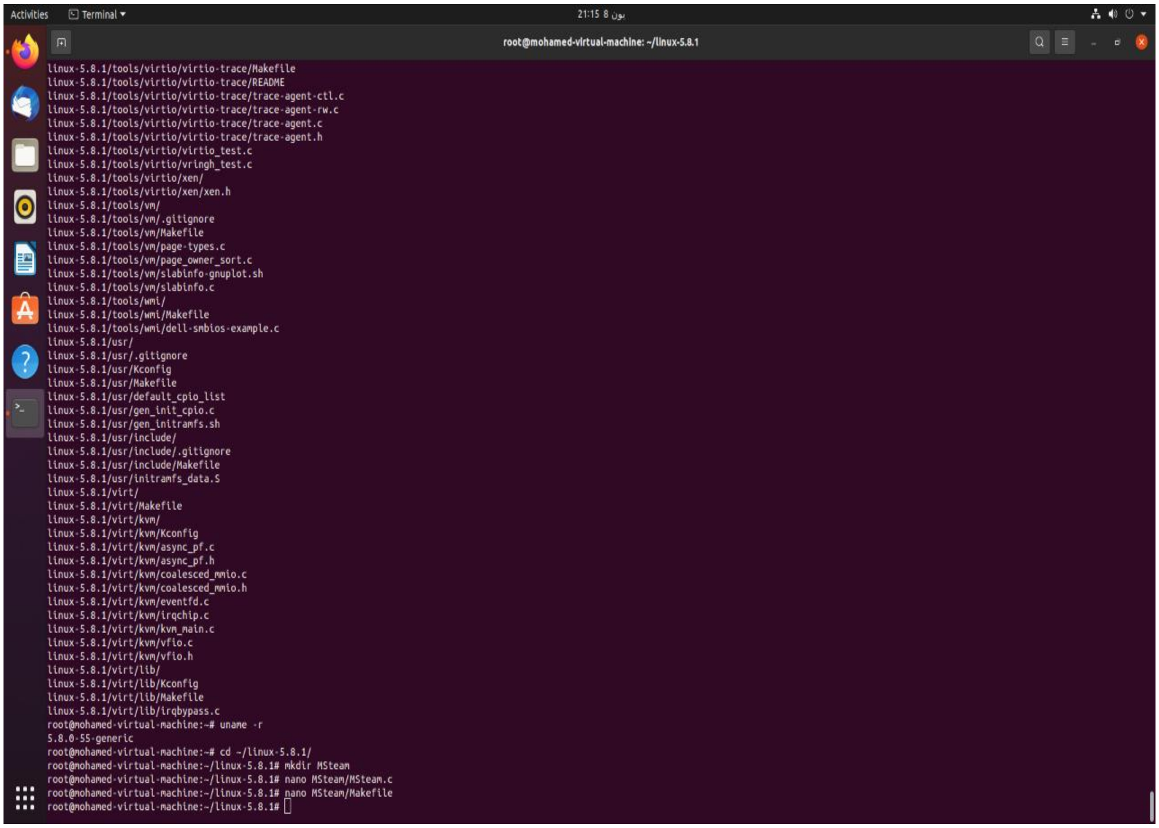
Kernel version is 5.8.1



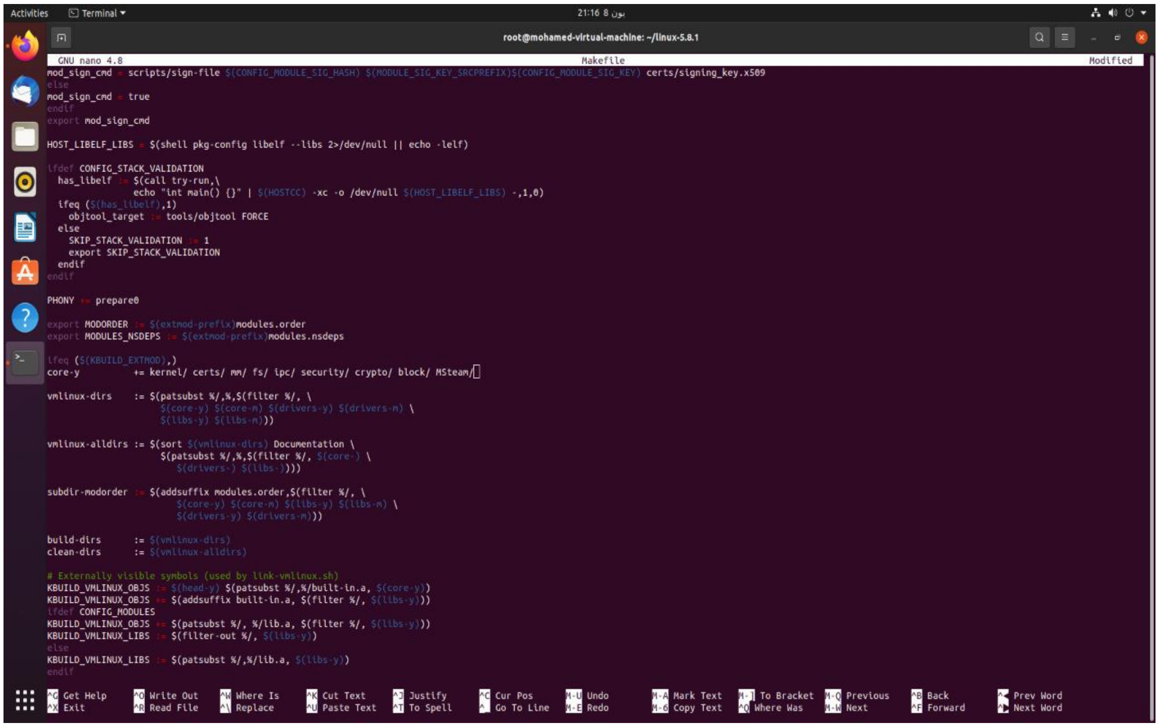
```
  GNU nano 4.8                         MSteam/Makefile                         Modified
obj-y := MSteam.o
```

```
^G Get Help   ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify    ^C Cur Pos    M-U Undo     M-A Mark Text  M-] To Bracket  M-Q Previous  ^B Back      ^◂ Prev Word
^X Exit       ^R Read File  ^\ Replace    ^U Paste Text ^T To Spell   ^_ Go To Line M-E Redo     M-6 Copy Text  ^Q Where Was    M-W Next      ^F Forward   ^▸ Next Word
```

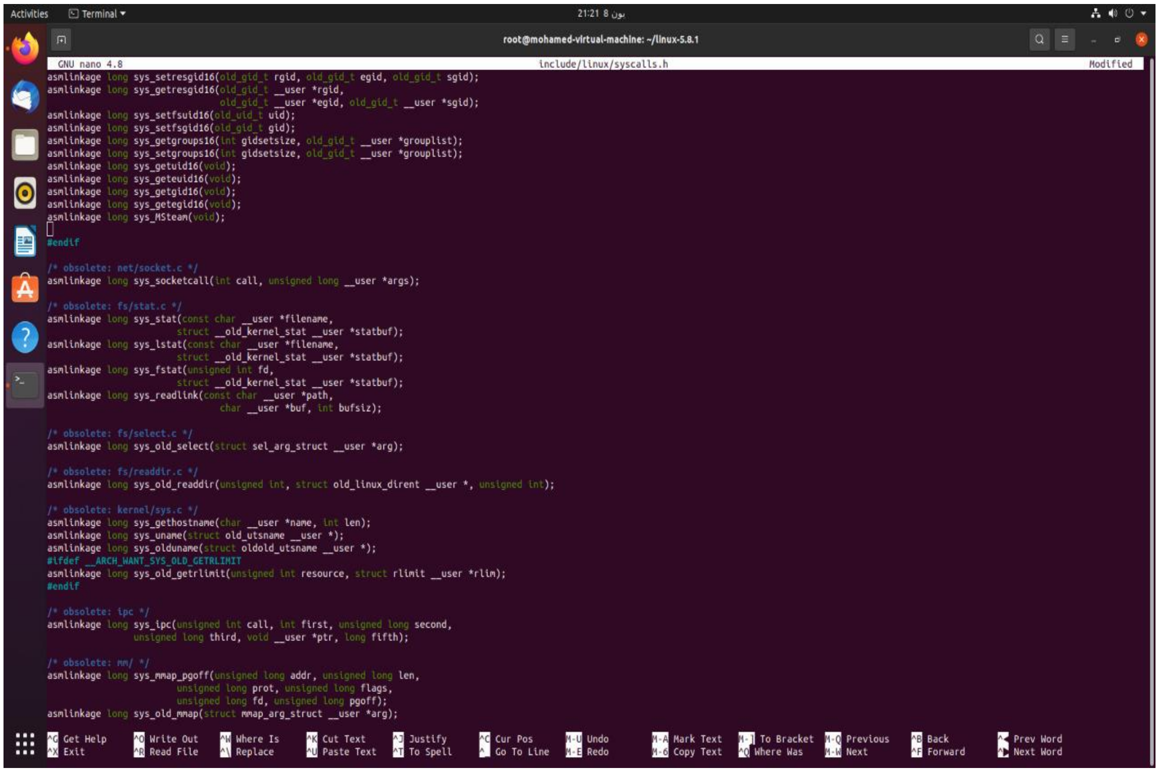
W create a file with team name..



```
linux-5.8.1/tools/virtio/virtio-trace/Makefile
linux-5.8.1/tools/virtio/virtio-trace/README
linux-5.8.1/tools/virtio/virtio-trace/trace-agent-ctl.c
linux-5.8.1/tools/virtio/virtio-trace/trace-agent-rw.c
linux-5.8.1/tools/virtio/virtio-trace/trace-agent.c
linux-5.8.1/tools/virtio/virtio-trace/trace-agent.h
linux-5.8.1/tools/virtio/virtio_test.c
linux-5.8.1/tools/virtio/vringh_test.c
linux-5.8.1/tools/virtio/xen/
linux-5.8.1/tools/virtio/xen/xen.h
linux-5.8.1/tools/vm/
linux-5.8.1/tools/vm/.gitignore
linux-5.8.1/tools/vm/Makefile
linux-5.8.1/tools/vm/page-types.c
linux-5.8.1/tools/vm/page_owner_sort.c
linux-5.8.1/tools/vm/slabinfo-gnuplot.sh
linux-5.8.1/tools/vm/slabinfo.c
linux-5.8.1/tools/wmi/
linux-5.8.1/tools/wmi/Makefile
linux-5.8.1/tools/wmi/dell-smbios-example.c
linux-5.8.1/usr/
linux-5.8.1/usr/.gitignore
linux-5.8.1/usr/Kconfig
linux-5.8.1/usr/Makefile
linux-5.8.1/usr/default_cpio_list
linux-5.8.1/usr/gen_init_cpio.c
linux-5.8.1/usr/gen_initramfs.sh
linux-5.8.1/usr/include/
linux-5.8.1/usr/include/.gitignore
linux-5.8.1/usr/include/Makefile
linux-5.8.1/usr/initramfs_data.S
linux-5.8.1/virt/
linux-5.8.1/virt/Makefile
linux-5.8.1/virt/kvm/
linux-5.8.1/virt/kvm/Kconfig
linux-5.8.1/virt/kvm/async_pf.c
linux-5.8.1/virt/kvm/async_pf.h
linux-5.8.1/virt/kvm/coalesced_mmio.c
linux-5.8.1/virt/kvm/coalesced_mmio.h
linux-5.8.1/virt/kvm/eventfd.c
linux-5.8.1/virt/kvm/irqchip.c
linux-5.8.1/virt/kvm/kvm_main.c
linux-5.8.1/virt/kvm/vfio.c
linux-5.8.1/virt/kvm/vfio.h
linux-5.8.1/virt/lib/
linux-5.8.1/virt/lib/Kconfig
linux-5.8.1/virt/lib/Makefile
linux-5.8.1/virt/lib/irqbypass.c
root@mohamed-virtual-machine:~# uname -r
5.8.0-55-generic
root@mohamed-virtual-machine:~# cd ~/linux-5.8.1/
root@mohamed-virtual-machine:~/linux-5.8.1# mkdir MSteam
root@mohamed-virtual-machine:~/linux-5.8.1# nano MSteam/MSteam.c
root@mohamed-virtual-machine:~/linux-5.8.1# nano MSteam/Makefile
root@mohamed-virtual-machine:~/linux-5.8.1# 
```

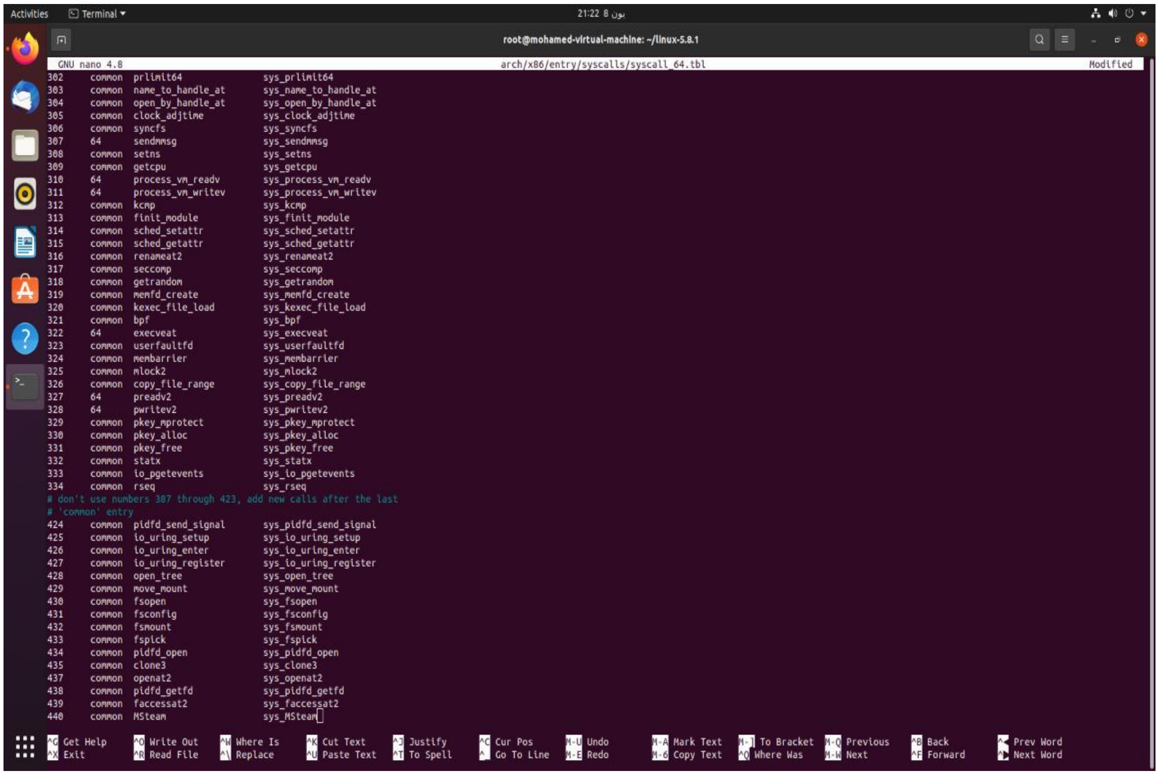


```
  GNU nano 4.8                                  Makefile                                          Modified
mod_sign_cmd = scripts/sign-file $(CONFIG_MODULE_SIG_HASH) $(MODULE_SIG_KEY_SRCPREFIX)$(CONFIG_MODULE_SIG_KEY) certs/signing_key.x509
else
mod_sign_cmd = true
endif
export mod_sign_cmd

HOST_LIBELF_LIBS = $(shell pkg-config libelf --libs 2>/dev/null || echo -lelf)

ifdef CONFIG_STACK_VALIDATION
  has_libelf := $(call try-run,\
                echo "int main() {}" | $(HOSTCC) -xc -o /dev/null $(HOST_LIBELF_LIBS) -,1,0)
  ifeq ($(has_libelf),1)
    objtool_target := tools/objtool FORCE
  else
    SKIP_STACK_VALIDATION := 1
    export SKIP_STACK_VALIDATION
  endif
endif

PHONY += prepare0

export MODORDER := $(extmod-prefix)modules.order
export MODULES_NSDEPS := $(extmod-prefix)modules.nsdeps

ifeq ($(KBUILD_EXTMOD),)
core-y          += kernel/ certs/ mm/ fs/ ipc/ security/ crypto/ block/ MSteam/

vmlinux-dirs    := $(patsubst %/,%,$(filter %/, \
                     $(core-y) $(core-m) $(drivers-y) $(drivers-m) \
                     $(libs-y) $(libs-m)))

vmlinux-alldirs := $(sort $(vmlinux-dirs) Documentation \
                     $(patsubst %/,%,$(filter %/, $(core-) \
                        $(drivers-) $(libs-))))

subdir-modorder := $(addsuffix modules.order,$(filter %/, \
                        $(core-y) $(core-m) $(libs-y) $(libs-m) \
                        $(drivers-y) $(drivers-m)))

build-dirs      := $(vmlinux-dirs)
clean-dirs      := $(vmlinux-alldirs)

# Externally visible symbols (used by link-vmlinux.sh)
KBUILD_VMLINUX_OBJS := $(head-y) $(patsubst %/,%/built-in.a, $(core-y))
KBUILD_VMLINUX_OBJS += $(addsuffix built-in.a, $(filter %/, $(libs-y)))
ifdef CONFIG_MODULES
KBUILD_VMLINUX_OBJS += $(patsubst %/, %/lib.a, $(filter %/, $(libs-y)))
KBUILD_VMLINUX_LIBS := $(filter-out %/, $(libs-y))
else
KBUILD_VMLINUX_LIBS := $(patsubst %/,%/lib.a, $(libs-y))
endif
```

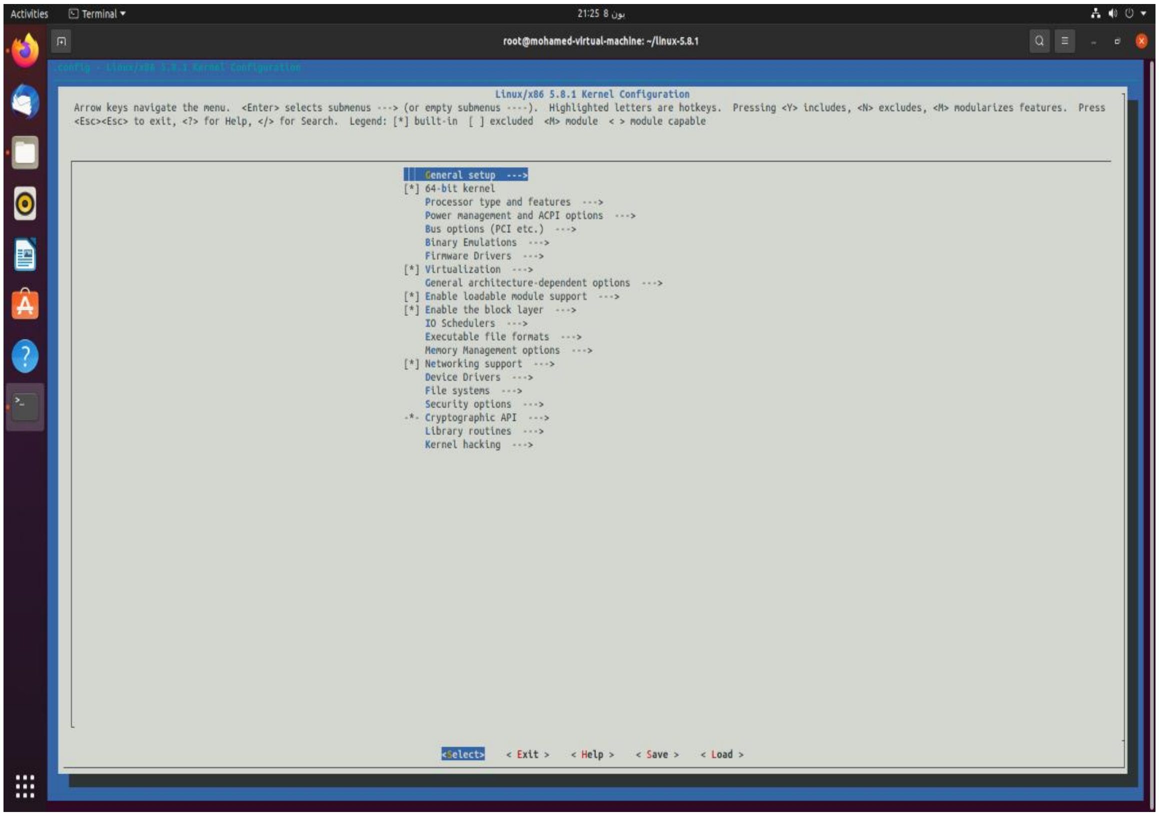


```
  GNU nano 4.8                             include/linux/syscalls.h                               Modified
asmlinkage long sys_setresgid16(old_gid_t rgid, old_gid_t egid, old_gid_t sgid);
asmlinkage long sys_getresgid16(old_gid_t __user *rgid,
                                old_gid_t __user *egid, old_gid_t __user *sgid);
asmlinkage long sys_setfsuid16(old_uid_t uid);
asmlinkage long sys_setfsgid16(old_gid_t gid);
asmlinkage long sys_getgroups16(int gidsetsize, old_gid_t __user *grouplist);
asmlinkage long sys_setgroups16(int gidsetsize, old_gid_t __user *grouplist);
asmlinkage long sys_getuid16(void);
asmlinkage long sys_geteuid16(void);
asmlinkage long sys_getgid16(void);
asmlinkage long sys_getegid16(void);
asmlinkage long sys_MSteam(void);

#endif

/* obsolete: net/socket.c */
asmlinkage long sys_socketcall(int call, unsigned long __user *args);

/* obsolete: fs/stat.c */
asmlinkage long sys_stat(const char __user *filename,
                        struct __old_kernel_stat __user *statbuf);
asmlinkage long sys_lstat(const char __user *filename,
                        struct __old_kernel_stat __user *statbuf);
asmlinkage long sys_fstat(unsigned int fd,
                        struct __old_kernel_stat __user *statbuf);
asmlinkage long sys_readlink(const char __user *path,
                                char __user *buf, int bufsiz);

/* obsolete: fs/select.c */
asmlinkage long sys_old_select(struct sel_arg_struct __user *arg);

/* obsolete: fs/readdir.c */
asmlinkage long sys_old_readdir(unsigned int, struct old_linux_dirent __user *, unsigned int);

/* obsolete: kernel/sys.c */
asmlinkage long sys_gethostname(char __user *name, int len);
asmlinkage long sys_uname(struct old_utsname __user *);
asmlinkage long sys_olduname(struct oldold_utsname __user *);
#ifdef __ARCH_WANT_SYS_OLD_GETRLIMIT
asmlinkage long sys_old_getrlimit(unsigned int resource, struct rlimit __user *rlim);
#endif

/* obsolete: ipc */
asmlinkage long sys_ipc(unsigned int call, int first, unsigned long second,
                unsigned long third, void __user *ptr, long fifth);

/* obsolete: mm/ */
asmlinkage long sys_mmap_pgoff(unsigned long addr, unsigned long len,
                        unsigned long prot, unsigned long flags,
                        unsigned long fd, unsigned long pgoff);
asmlinkage long sys_old_mmap(struct mmap_arg_struct __user *arg);
```

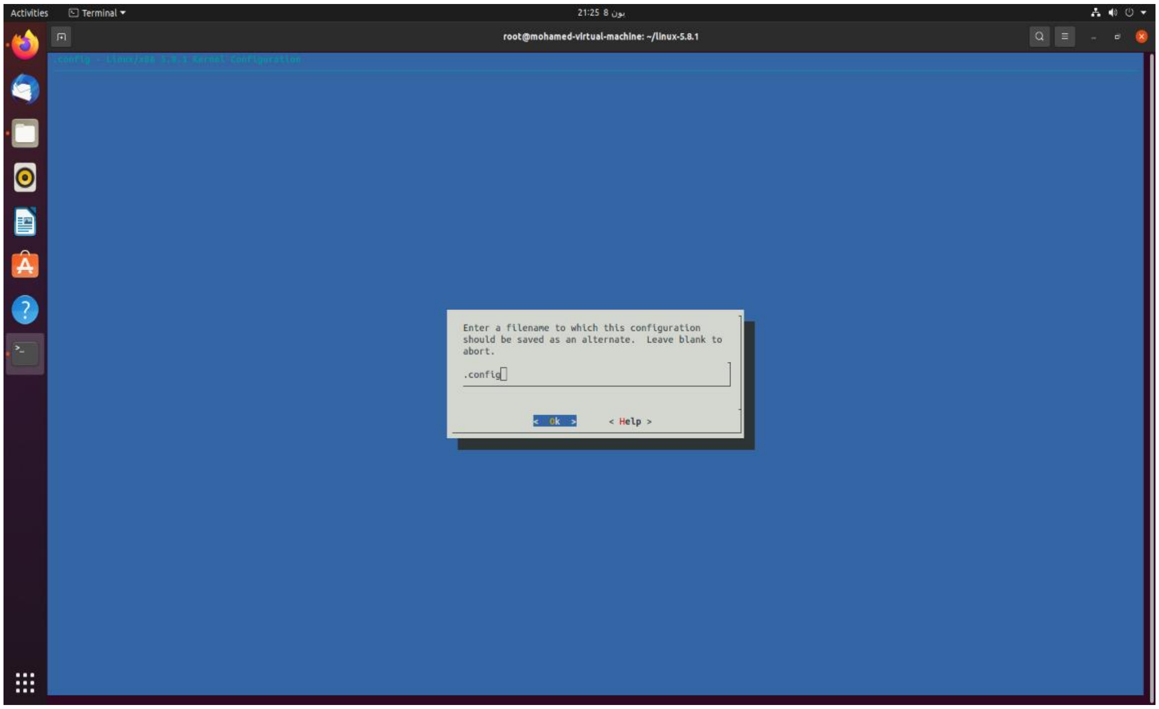
We add a corresponding function prototype for our system call to the header file of system calls.



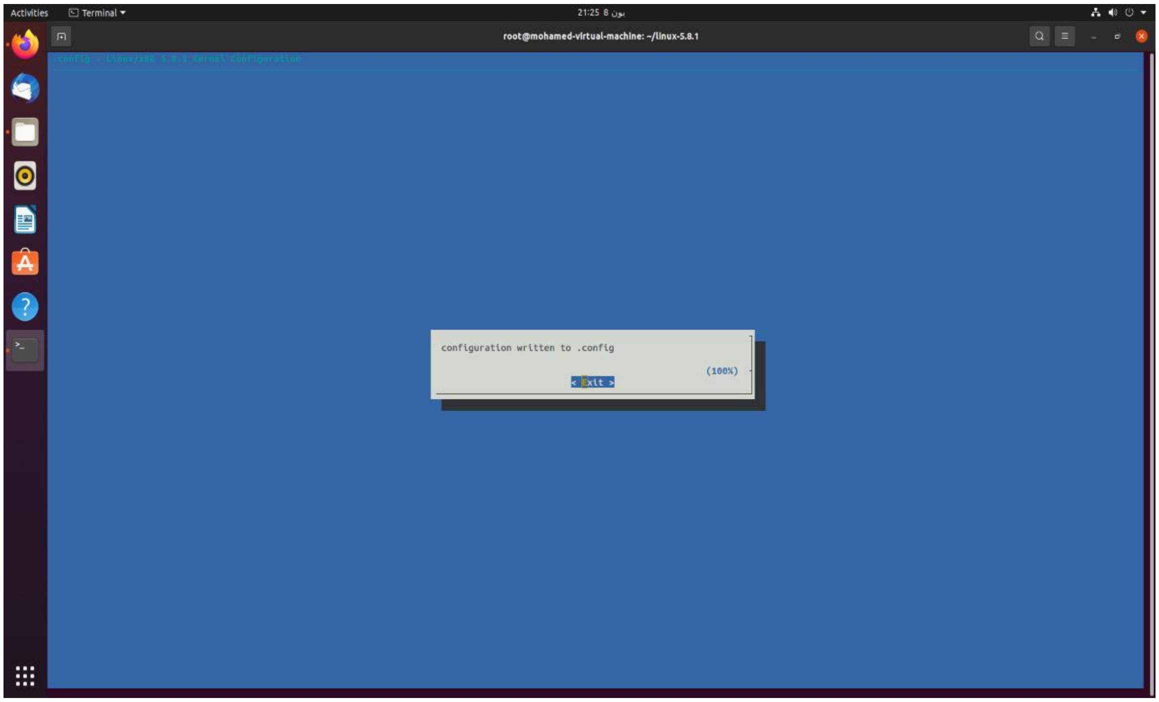
```
  GNU nano 4.8                         arch/x86/entry/syscalls/syscall_64.tbl                         Modified
302     common  prlimit64               sys_prlimit64
303     common  name_to_handle_at       sys_name_to_handle_at
304     common  open_by_handle_at       sys_open_by_handle_at
305     common  clock_adjtime           sys_clock_adjtime
306     common  syncfs                  sys_syncfs
307     64      sendmmsg                sys_sendmmsg
308     common  setns                   sys_setns
309     common  getcpu                  sys_getcpu
310     64      process_vm_readv        sys_process_vm_readv
311     64      process_vm_writev       sys_process_vm_writev
312     common  kcmp                    sys_kcmp
313     common  finit_module            sys_finit_module
314     common  sched_setattr           sys_sched_setattr
315     common  sched_getattr           sys_sched_getattr
316     common  renameat2               sys_renameat2
317     common  seccomp                 sys_seccomp
318     common  getrandom               sys_getrandom
319     common  memfd_create            sys_memfd_create
320     common  kexec_file_load         sys_kexec_file_load
321     common  bpf                     sys_bpf
322     64      execveat                sys_execveat
323     common  userfaultfd             sys_userfaultfd
324     common  membarrier              sys_membarrier
325     common  mlock2                  sys_mlock2
326     common  copy_file_range         sys_copy_file_range
327     64      preadv2                 sys_preadv2
328     64      pwritev2                sys_pwritev2
329     common  pkey_mprotect           sys_pkey_mprotect
330     common  pkey_alloc              sys_pkey_alloc
331     common  pkey_free               sys_pkey_free
332     common  statx                   sys_statx
333     common  io_pgetevents           sys_io_pgetevents
334     common  rseq                    sys_rseq
# don't use numbers 387 through 423, add new calls after the last
# 'common' entry
424     common  pidfd_send_signal       sys_pidfd_send_signal
425     common  io_uring_setup          sys_io_uring_setup
426     common  io_uring_enter          sys_io_uring_enter
427     common  io_uring_register       sys_io_uring_register
428     common  open_tree               sys_open_tree
429     common  move_mount              sys_move_mount
430     common  fsopen                  sys_fsopen
431     common  fsconfig                sys_fsconfig
432     common  fsmount                 sys_fsmount
433     common  fspick                  sys_fspick
434     common  pidfd_open              sys_pidfd_open
435     common  clone3                  sys_clone3
437     common  openat2                 sys_openat2
438     common  pidfd_getfd             sys_pidfd_getfd
439     common  faccessat2              sys_faccessat2
440     common  MSteam                  sys_MSteam

^G Get Help   ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify    ^C Cur Pos    M-U Undo      M-A Mark Text   M-] To Bracket  M-Q Previous   ^B Back      ^◂ Prev Word
^X Exit       ^R Read File  ^\ Replace    ^U Paste Text ^T To Spell   ^_ Go To Line M-E Redo      M-6 Copy Text   ^Q Where Was    M-W Next       ^F Forward   ^▸ Next Word
```



```
.config - Linux/x86 5.8.1 Kernel Configuration

                                   Linux/x86 5.8.1 Kernel Configuration
 Arrow keys navigate the menu.  <Enter> selects submenus ---> (or empty submenus ----).  Highlighted letters are hotkeys.  Pressing <Y> includes, <N> excludes, <M> modularizes features.  Press
 <Esc><Esc> to exit, <?> for Help, </> for Search.  Legend: [*] built-in  [ ] excluded  <M> module  < > module capable

                              General setup  --->
                          [*] 64-bit kernel
                              Processor type and features  --->
                              Power management and ACPI options  --->
                              Bus options (PCI etc.)  --->
                              Binary Emulations  --->
                              Firmware Drivers  --->
                          [*] Virtualization  --->
                              General architecture-dependent options  --->
                          [*] Enable loadable module support  --->
                          [*] Enable the block layer  --->
                              IO Schedulers  --->
                              Executable file formats  --->
                              Memory Management options  --->
                          [*] Networking support  --->
                              Device Drivers  --->
                              File systems  --->
                              Security options  --->
                          -*- Cryptographic API  --->
                              Library routines  --->
                              Kernel hacking  --->

                    <Select>    < Exit >    < Help >    < Save >    < Load >
```



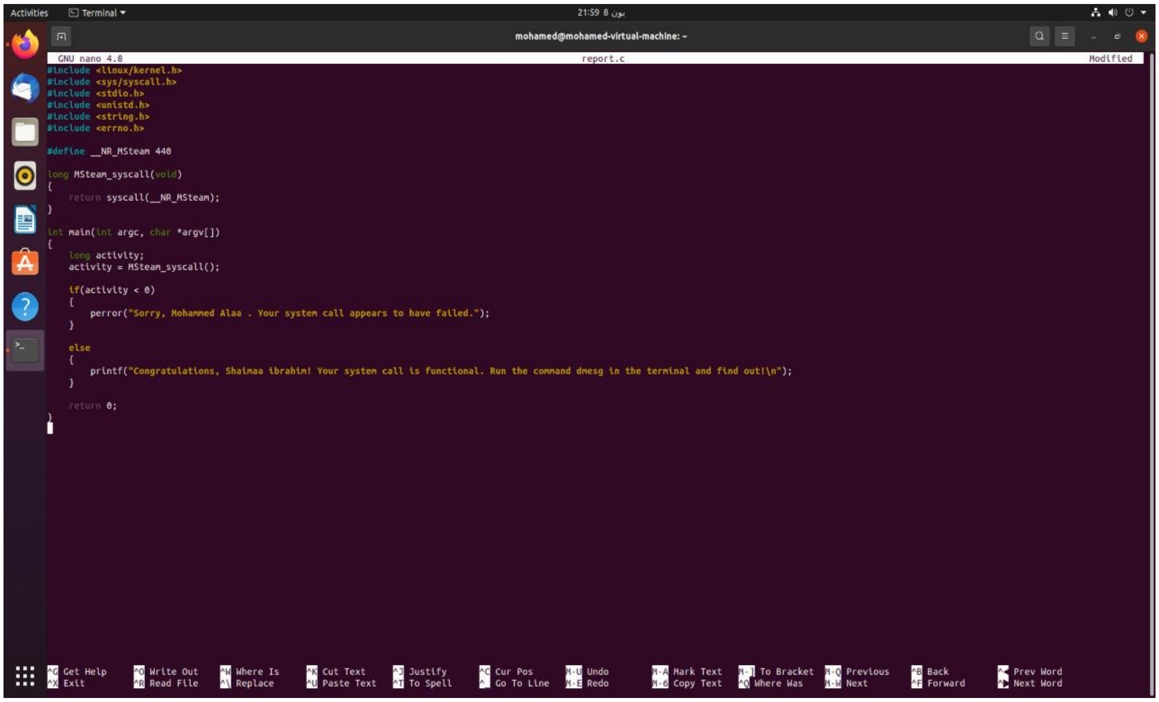
```
.config - Linux/x86 5.8.1 Kernel Configuration

Enter a filename to which this configuration
should be saved as an alternate.  Leave blank to
abort.

.config

        <  Ok  >      < Help >
```



```
.config - Linux/x86 5.8.1 Kernel Configuration

configuration written to .config

                                        (100%)
              < Exit >
```

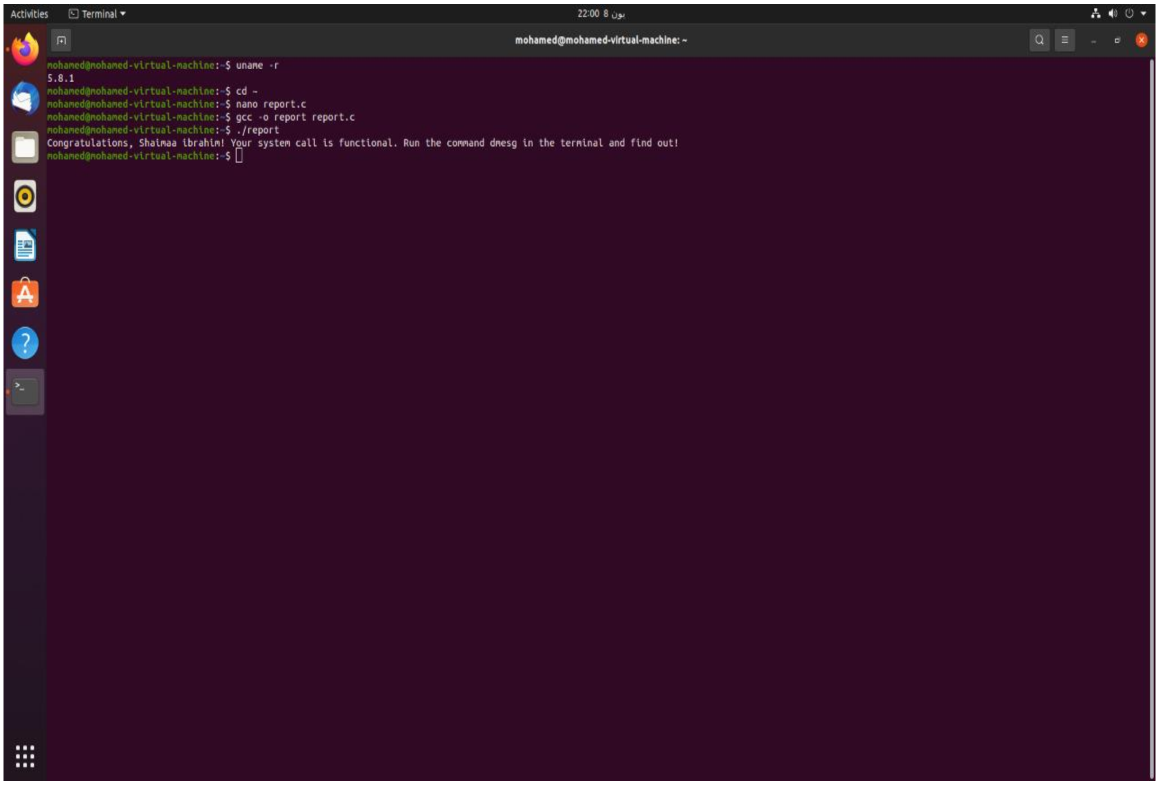
We make no changes to keep it in default settings.

Save and exit.

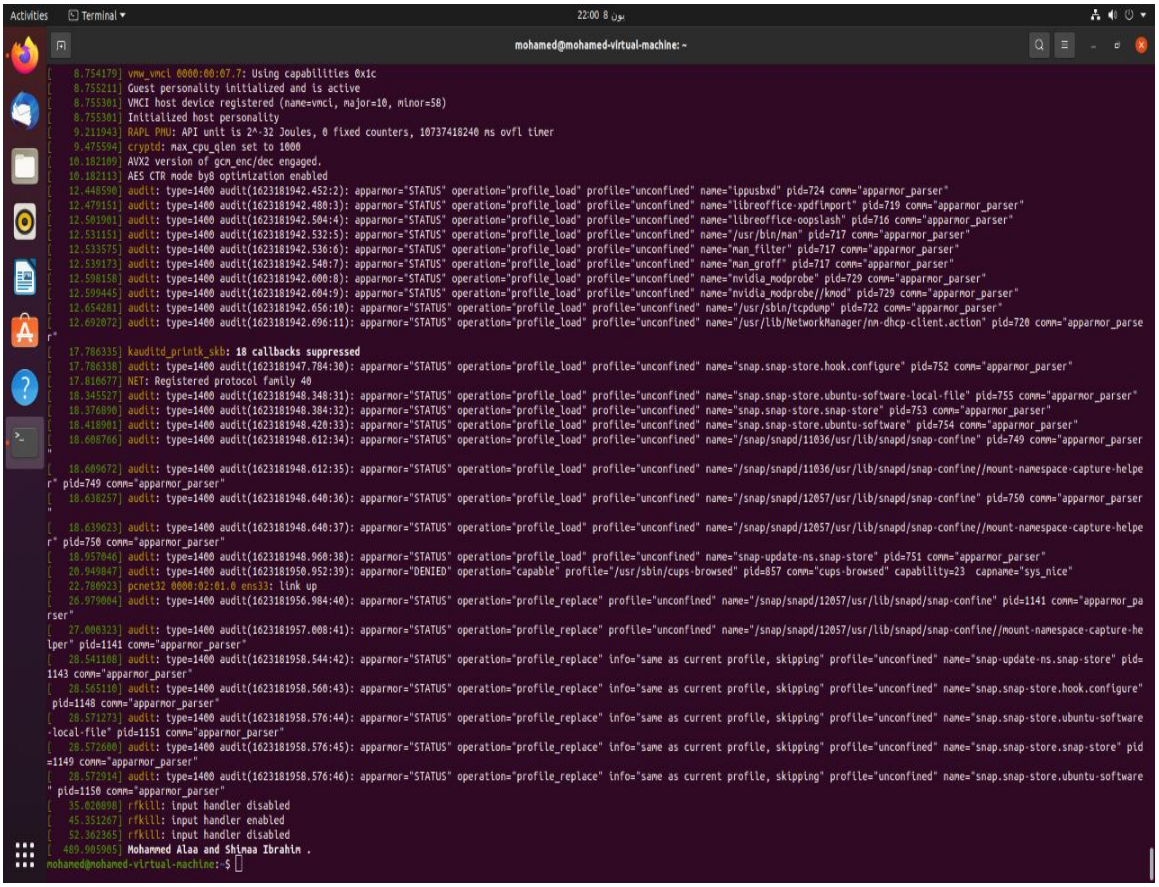


```c
#include <linux/kernel.h>
#include <sys/syscall.h>
#include <stdio.h>
#include <unistd.h>
#include <string.h>
#include <errno.h>

#define __NR_MSteam 440

long MSteam_syscall(void)
{
    return syscall(__NR_MSteam);
}

int main(int argc, char *argv[])
{
    long activity;
    activity = MSteam_syscall();

    if(activity < 0)
    {
        perror("Sorry, Mohammed Alaa . Your system call appears to have failed.");
    }

    else
    {
        printf("Congratulations, Shaimaa ibrahim! Your system call is functional. Run the command dmesg in the terminal and find out!\n");
    }

    return 0;
}
```

We are creating a C file to generate a report of the success or failure of your system call.



```
mohamed@mohamed-virtual-machine:~$ uname -r
5.8.1
mohamed@mohamed-virtual-machine:~$ cd ~
mohamed@mohamed-virtual-machine:~$ nano report.c
mohamed@mohamed-virtual-machine:~$ gcc -o report report.c
mohamed@mohamed-virtual-machine:~$ ./report
Congratulations, Shaimaa ibrahim! Your system call is functional. Run the command dmesg in the terminal and find out!
mohamed@mohamed-virtual-machine:~$ 
```



```
[    8.754179] vmw_vmci 0000:00:07.7: Using capabilities 0x1c
[    8.755211] Guest personality initialized and is active
[    8.755301] VMCI host device registered (name=vmci, major=10, minor=58)
[    8.755301] Initialized host personality
[    9.211943] RAPL PMU: API unit is 2^-32 Joules, 0 fixed counters, 10737418240 ms ovfl timer
[    9.475594] cryptd: max_cpu_qlen set to 1000
[   10.182109] AVX2 version of gcm_enc/dec engaged.
[   10.182113] AES CTR mode by8 optimization enabled
[   12.448590] audit: type=1400 audit(1623181942.452:2): apparmor="STATUS" operation="profile_load" profile="unconfined" name="ippusbxd" pid=724 comm="apparmor_parser"
[   12.479151] audit: type=1400 audit(1623181942.480:3): apparmor="STATUS" operation="profile_load" profile="unconfined" name="libreoffice-xpdfimport" pid=719 comm="apparmor_parser"
[   12.501901] audit: type=1400 audit(1623181942.504:4): apparmor="STATUS" operation="profile_load" profile="unconfined" name="libreoffice-oopslash" pid=716 comm="apparmor_parser"
[   12.531151] audit: type=1400 audit(1623181942.532:5): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/usr/bin/man" pid=717 comm="apparmor_parser"
[   12.533575] audit: type=1400 audit(1623181942.536:6): apparmor="STATUS" operation="profile_load" profile="unconfined" name="man_filter" pid=717 comm="apparmor_parser"
[   12.539173] audit: type=1400 audit(1623181942.540:7): apparmor="STATUS" operation="profile_load" profile="unconfined" name="man_groff" pid=717 comm="apparmor_parser"
[   12.598158] audit: type=1400 audit(1623181942.600:8): apparmor="STATUS" operation="profile_load" profile="unconfined" name="nvidia_modprobe" pid=729 comm="apparmor_parser"
[   12.599445] audit: type=1400 audit(1623181942.604:9): apparmor="STATUS" operation="profile_load" profile="unconfined" name="nvidia_modprobe//kmod" pid=729 comm="apparmor_parser"
[   12.654281] audit: type=1400 audit(1623181942.656:10): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/usr/sbin/tcpdump" pid=722 comm="apparmor_parser"
[   12.692072] audit: type=1400 audit(1623181942.696:11): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/usr/lib/NetworkManager/nm-dhcp-client.action" pid=720 comm="apparmor_parse
r"
[   17.786335] kauditd_printk_skb: 18 callbacks suppressed
[   17.786338] audit: type=1400 audit(1623181947.784:30): apparmor="STATUS" operation="profile_load" profile="unconfined" name="snap.snap-store.hook.configure" pid=752 comm="apparmor_parser"
[   17.810677] NET: Registered protocol family 40
[   18.345527] audit: type=1400 audit(1623181948.348:31): apparmor="STATUS" operation="profile_load" profile="unconfined" name="snap.snap-store.ubuntu-software-local-file" pid=755 comm="apparmor_parser"
[   18.376890] audit: type=1400 audit(1623181948.384:32): apparmor="STATUS" operation="profile_load" profile="unconfined" name="snap.snap-store.snap-store" pid=753 comm="apparmor_parser"
[   18.418901] audit: type=1400 audit(1623181948.420:33): apparmor="STATUS" operation="profile_load" profile="unconfined" name="snap.snap-store.ubuntu-software" pid=754 comm="apparmor_parser"
[   18.608766] audit: type=1400 audit(1623181948.612:34): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/snap/snapd/11036/usr/lib/snapd/snap-confine" pid=749 comm="apparmor_parser
"
[   18.609672] audit: type=1400 audit(1623181948.612:35): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/snap/snapd/11036/usr/lib/snapd/snap-confine//mount-namespace-capture-helpe
r" pid=749 comm="apparmor_parser"
[   18.638257] audit: type=1400 audit(1623181948.640:36): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/snap/snapd/12057/usr/lib/snapd/snap-confine" pid=750 comm="apparmor_parser
"
[   18.639623] audit: type=1400 audit(1623181948.640:37): apparmor="STATUS" operation="profile_load" profile="unconfined" name="/snap/snapd/12057/usr/lib/snapd/snap-confine//mount-namespace-capture-helpe
r" pid=750 comm="apparmor_parser"
[   18.957046] audit: type=1400 audit(1623181948.960:38): apparmor="STATUS" operation="profile_load" profile="unconfined" name="snap-update-ns.snap-store" pid=751 comm="apparmor_parser"
[   20.949847] audit: type=1400 audit(1623181950.952:39): apparmor="DENIED" operation="capable" profile="/usr/sbin/cups-browsed" pid=857 comm="cups-browsed" capability=23  capname="sys_nice"
[   22.780923] pcnet32 0000:02:01.0 ens33: link up
[   26.979004] audit: type=1400 audit(1623181956.984:40): apparmor="STATUS" operation="profile_replace" profile="unconfined" name="/snap/snapd/12057/usr/lib/snapd/snap-confine" pid=1141 comm="apparmor_pa
rser"
[   27.000323] audit: type=1400 audit(1623181957.008:41): apparmor="STATUS" operation="profile_replace" profile="unconfined" name="/snap/snapd/12057/usr/lib/snapd/snap-confine//mount-namespace-capture-he
lper" pid=1141 comm="apparmor_parser"
[   28.541108] audit: type=1400 audit(1623181958.544:42): apparmor="STATUS" operation="profile_replace" info="same as current profile, skipping" profile="unconfined" name="snap-update-ns.snap-store" pid=
1143 comm="apparmor_parser"
[   28.565110] audit: type=1400 audit(1623181958.560:43): apparmor="STATUS" operation="profile_replace" info="same as current profile, skipping" profile="unconfined" name="snap.snap-store.hook.configure"
 pid=1148 comm="apparmor_parser"
[   28.571273] audit: type=1400 audit(1623181958.576:44): apparmor="STATUS" operation="profile_replace" info="same as current profile, skipping" profile="unconfined" name="snap.snap-store.ubuntu-software
-local-file" pid=1151 comm="apparmor_parser"
[   28.572600] audit: type=1400 audit(1623181958.576:45): apparmor="STATUS" operation="profile_replace" info="same as current profile, skipping" profile="unconfined" name="snap.snap-store.snap-store" pid
=1149 comm="apparmor_parser"
[   28.572914] audit: type=1400 audit(1623181958.576:46): apparmor="STATUS" operation="profile_replace" info="same as current profile, skipping" profile="unconfined" name="snap.snap-store.ubuntu-software
" pid=1150 comm="apparmor_parser"
[   35.020898] rfkill: input handler disabled
[   45.351267] rfkill: input handler enabled
[   52.362365] rfkill: input handler disabled
[  489.905905] Mohammed Alaa and Shimaa Ibrahim .
mohamed@mohamed-virtual-machine:~$ 
```

Mohamed Alaa.

Shaimaa Ibrahim.

Mohamed Eweas.