**Write- up**

**Assignment No. 10**

Implement a new system call, add this new system call in the Linux kernel (any kernel source,

any architecture and any Linux kernel distribution) and demonstrate the use of same.

**Write description of all following steps-**

1. What is System call?
2. What is System call interface?
3. What is System call table?
4. uname –r
5. Download kernel source code
6. Extract the kernel source code
7. Copy it to specific directory
8. Prototype for system call [asmlinkage long sys\_userdefinedname(parameters)]
9. Makefile description
10. Changes required in the various files: (Write required changes)
    1. /usr/src/linux-3.17.7/Makefile
    2. /usr/src/linux-3.17.7/arch/x86/syscalls/syscall64-tbl
    3. /usr/src/linux-3.17.7/include/linux/syscalls.h
11. Configure the kernel
    1. update
    2. ncurses-dev
    3. make menuconfig
12. make –j5
13. make modules\_install
14. make install
15. reboot
16. User program: syscall function

**Print-outs:**

* Snapshots of the all above steps
* System call program
* Makefile
* User program (that uses system call) and its output