Kernel_2d_Memcpy

Name - Kunal Sharma
Roll number - 2021331
Branch - CSD

Steps used to add the system call are as follow:

1. First created a copy of kernel using cp command.
2. Then in copied kernel i am writing the syscall in sys.c which is in directory copiedKernel/kernel/nano sys.c
3. Then updating the system call in syscall_64.tbl which is in directory copiedKernel/Arch/x86/entry/syscalls/nano syscall_64.tbl
4. Then updating the function call before endif in syscalls.h which is in directory copiedKernel/Arch/csky/include/asm/nano syscalls.h
5. Then using the diff command to create a Patch file. The command used is diff -urN OriginalKernel/ CopiedKernel/ > Kunal.patch
6. Then created an empty directory and moved the patch file and original kernel in this empty directory using the commands mv kunal.patch NewDirectory and mv OriginalKernel NewDirectory.
7. Then move to New directory to patch the original kernel by using the command patch -p0 -i Kunal.patch
8. Then move to the original kernel and then use the make command to compile the kernel .
9. Then update the image file using three commands which are as follow -
    - cp -v arch/x86/boot/bzImage /boot/vmlinuz-linux_hocus_pocus
    - Mkinitcpio -k 6.0.8 -g /boot/initramfs-linux_hocus_pocus.img
    - Grub-mkconfig -o /boot/grub/grub.cfg
10. Then reboot the VM using reboot command
11. Then I created the test.c file to test the system call.
12. On successful working of the system call it will print a string “Successfully invoked”