- ret = shmctl(shmid, IPC_STAT, &shmid_ds);
    - arg1: shared memory id whose info to be retrieved.
    - arg2: command = IPC_STAT to get the info about shared memory.
    - arg3: out param to collect info about shared memory.

shmat() syscall

- Get the address of the shared memory region i.e. attach shm region to the current process.
    - Internally increments nattach count in shared memory object.
- ptr = stmat(shmid, virt_addr, flags);
    - arg1: shared memory id of region to be attached to the process.
    - arg2: base virtual address in address space of the current process to be mapped to shared memory region.
        - NULL means use any available address.
    - arg3: flags (extra information/behaviour).
        - 0 means default behaviour.
    - returns pointer to the shared memory region on success. -1 is returned on failure.

shmdt() syscall

- Release the shared memory pointer i.e. detach shm region from the current process.
    - Internally decrements nattach count in shared memory object.
    - If nattach count become zero and shared memory region is marked for deletion, delete the shared memory.
- shmdt(ptr);
    - arg1: shared memory pointer to be detached.

Assignments

1. Create message queue to send the fifo name and file name from client to server. Send given file to the client via the given fifo. Client should accept that file and save to disk.
2. The client process send two numbers and operation (+, -, *, or /) to the server process via unix socket. The server process calculate the result and return it via same socket. The client process print the result.

3. The client process send two numbers and operation (+, -, *, or /) to the server process via inet socket. The server process calculate the result and return it via same socket. The client process print the result.
4. Execute the INET server-client chat application on two different computers in a network.