## EXPERIMENT 9

## Illustrate the concept of inter-process communication using shared memory with a C program

**AIM:**

To implement the concept of inter-process communication using shared memory using C programming.

## ALGORITHM:

1. Create a shared memory segment:

* Use shmget() function to create a new shared memory segment or get the identifier of an existing one.
* Ensure to handle errors if the shared memory creation fails.

1. Attach shared memory to processes:

* Use shmat() function to attach the shared memory segment to the process address space.
* This allows processes to read and write data to the shared memory.

1. Read/Write data in shared memory:

* Processes can read and write data directly to the shared memory location.
* Ensure proper synchronization mechanisms (like semaphores) are used to avoid race conditions and maintain data consistency.

1. Detach shared memory and clean up:

* Use shmdt() function to detach the shared memory segment from the process when done.
* Optionally, remove the shared memory segment using shmctl() with the IPC\_RMID command.

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