OPERATING SYSTEM - CS23431

EXP 7

IPC USING SHARED MEMORY

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PROGRAM:

Sender.c:

#include <stdio.h>

#include <stdlib.h>

#include <unistd.h>

#include <sys/shm.h> #include <string.h> int main() { int shmid; shmid = shmget((key\_t)2345, 1024, 0666 | IPC\_CREAT); if (shmid == -1) { perror("shmget failed"); exit(1);

}

printf("Key of the shared memory segment: %d\n", shmid);

char \*shmaddr = (char \*) shmat(shmid, NULL, 0);

if (shmaddr == (char \*) -1) { perror("shmat failed");

exit(1);

}

printf("Process is attached at address %p\n", shmaddr);

sprintf(shmaddr, "Hello world!!");

printf("Content written to shared memory: %s\n", shmaddr);

if (shmdt(shmaddr) == -1) { perror("shmdt failed");

exit(1);

}

return 0;

}

Receiver.c:

#include <stdio.h>

#include <stdlib.h>

#include <unistd.h>

#include <string.h> #include <sys/shm.h> int main() {

int shmid; char \*shmaddr; shmid = shmget((key\_t)2345, 1024, 0666);

if (shmid == -1) { perror("shmget failed");

exit(1);

}

printf("Key of the shared memory segment: %d\n", shmid);

shmaddr = (char \*) shmat(shmid, NULL, 0); if (shmaddr == (char \*) -1) { perror("shmat failed");

exit(1);

}

printf("Process is attached at address %p\n", shmaddr);

printf("Data read from shared memory: %s\n", shmaddr);

if (shmdt(shmaddr) == -1) { perror("shmdt failed");

exit(1);

}

return 0; }

OUTPUT:

