

1. What exactly is being output by Sample Program 1 (i.e. what is the *meaning* of the output values)?

Value A is the memory address of the start of shared memory

Value B is the memory address of the end of shared memory

2. Read the man pages;
then describe the meaning / purpose of each argument used by the ``shmget()`` function call.
* Notice the use of macros to specify access permissions

Key → which shared memory block are we talking about

Size → How big should the memory be if we're making one

Shmflg → What permissions or creation rules do we want or have

3. Describe two specific uses of the ``shmctl()`` function call

1. Removing a Shared Memory Segment from memory
2. Retrieving status information from a shared memory segment

4. Read the man pages,
then use ``shmctl()`` to modify Sample Program 1 so that it prints out the size of the shared memory segment

```
root@Rabbitlaptop:~/lab-5-shared-memory-gerrit-m# ./a.out
Value a: 0x7f644a499000 Value b: 0x7f644a49a000
Size of Shared Memory Segment is 4096 bytes.
```

5. Submit your screenshots

```
root@Rabbitlaptop:~/lab-5-shared-memory-gerrit-m# ./a.out
Value a: 0x7f644a499000 Value b: 0x7f644a49a000
Size of Shared Memory Segment is 4096 bytes.
Shared Memory Segment ID: 6
^C
```

```
root@Rabbitlaptop:~/lab-5-shared-memory-gerrit-m# ipcs
```

```
----- Message Queues -----
```

key	msqid	owner	perms	used-bytes	messages
-----	-------	-------	-------	------------	----------

```
----- Shared Memory Segments -----
```

key	shmid	owner	perms	bytes	nattch	status
0x00000000	2	root	600	4096	0	
0x00000000	3	root	600	4096	0	
0x00000000	6	root	600	4096	0	

```
----- Semaphore Arrays -----
```

key	semid	owner	perms	nsems
-----	-------	-------	-------	-------

```
root@Rabbitlaptop:~/lab-5-shared-memory-gerrit-m# ipcrm -m 6
```

```
root@Rabbitlaptop:~/lab-5-shared-memory-gerrit-m# ipcs
```

```
----- Message Queues -----
```

key	msqid	owner	perms	used-bytes	messages
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