

Homework 4

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Screenshots:

Prob 2:

pipes

```
debian@beaglebone:~/repo/APES_HW4/prob2$ ./prob2.elf
Heart Beat switched off on LED0
PIPES Example
Enter Parent Process, PID:987
Enter Child Process, PID:989
Messag rxd in parent:Hello from Child;led_status:0
Message Sent from child
Message Sent from parent
Messag rxd in child:Hello from Parent;led_status:1
Exit child
Exit parent
debian@beaglebone:~/repo/APES_HW4/prob2$ ./prob2.elf
```

Message Que:

```
debian@beaglebone:~/repo/APES_HW4/prob2$ ./prob2.elf
Heart Beat switched off on LED0
Messgae Que Example
Parent Process, PID:1067
Messgae Que Opened by sender
Message sent from parent
Entering Child, PID:1069
Messgae Que Opened by rxr
rxd in child:Hello from Parent;led_status:1
length:4096; priority:30
Message sent from child
rxd in parent:Hello from Child;led_status:0
length:4096; priority:30
debian@beaglebone:~/repo/APES_HW4/prob2$
```

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Shared Memory:

```
debian@beaglebone:~/repo/APES_HW4/prob2$ ./prob2.elf
Heart Beat switched off on LED0
Shared Memory Example
Entering Parent, PID:1079
Written from parent
Entering Child, PID:1081
Read in child:Hello from Parent; led_status:1
Written from child
Read in Parent :Hello from Child; led_status:0
debian@beaglebone:~/repo/APES_HW4/prob2$
```

Sockets

```
debian@beaglebone:~/repo/APES_HW4/prob2$ sudo ./prob2.elf
Heart Beat switched off on LED0
Entering Parent -server, PID:1161
Entering Child-client, PID:1163
read in parent:Hel;led_status:0
message sent from child
Message sent from parent
read in child:Hel;led_status:1
debian@beaglebone:~/repo/APES_HW4/prob2$
```

Prob 3:

```
[ 67.104838] prob3: loading out-of-tree module taints kernel.
[ 67.106105] Starting pTreeInfo Module
[ 67.106108]
Name PID State NICE #Children
[ 67.106111] insmod 3336 0 0 0
[ 67.106114] sudo 3335 1 0 1
[ 67.106116] bash 2662 1 0 1
[ 67.106119] gnome-terminal- 2656 1 0 1
[ 67.106126] upstart 2033 1 0 44
[ 67.106129] lightdm 1882 1 0 1
[ 67.106131] lightdm 1649 1 0 2
[ 67.106136] systemd 1 1 0 29
[ 82.039827] Cleaning up module.
ravi@ub:~/APES/APES_HW4/prob3$
```

Prob 4:

```
[ 452.403921] Starting kthread Module
[ 452.404612] Thread 1 Created
[ 452.404623] Entered First Thread
[ 452.404624] Data Qued from thread1
[ 452.405634] Thread 2 Created
[ 452.406887] Entered second Thread
[ 452.406888] Data DeQued in thread2
[ 452.406889] prev PID & vruntime:4242 145577645534
[ 452.406890] current PID & vruntime:4243 145577036563
[ 452.406890] next PID & vruntime:4244 145578236561
[ 462.815845] Data Qued from thread1
[ 463.841162] Data DeQued in thread2
[ 463.841163] prev PID & vruntime:3425 146162834386
[ 463.841164] current PID & vruntime:4243 146211477067
[ 463.841164] next PID & vruntime:4244 146211478965
[ 473.055813] Data Qued from thread1
[ 474.079771] Data DeQued in thread2
[ 474.079773] prev PID & vruntime:3425 146610482169
[ 474.079773] current PID & vruntime:4243 146659084085
[ 474.079774] next PID & vruntime:4244 146258765966
[ 483.296789] Data Qued from thread1
[ 484.320594] Data DeQued in thread2
[ 484.320596] prev PID & vruntime:3425 147042015393
[ 484.320597] current PID & vruntime:4243 147156550816
[ 484.320597] next PID & vruntime:4244 146682585343
[ 493.535792] Data Qued from thread1
[ 494.559800] Data DeQued in thread2
[ 494.559801] prev PID & vruntime:3425 147632241886
[ 494.559802] current PID & vruntime:4243 147680051230
[ 494.559802] next PID & vruntime:4244 147227243106
[ 503.775818] Data Qued from thread1
[ 504.799905] Data DeQued in thread2
[ 504.799906] prev PID & vruntime:3425 148154205774
[ 504.799907] current PID & vruntime:4243 148202519066
[ 504.799907] next PID & vruntime:4244 147708068969
ravi@ub:~/APES/APES_HW4/prob4$
```

