

Q2. Using Shared Memory

Compile the 3 programs in multiple Terminal Windows as below:

The image shows three separate terminal windows side-by-side. Each window has a title bar indicating it is a sharedMemFinal session. The first window (p1) contains the command: (base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar\$ gcc P1.c -o p1. The second window (p2) contains the command: (base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar\$ gcc P2.c -o p2. The third window (p3) contains the command: (base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar\$ gcc P3.c -o p3.

Run the 3 Programs and we can see that, Waiting for P1, Waiting for P2 is printed as output for P2 and P3 respectively and they are waiting for P1 to Write the Data:

The image shows three terminal windows labeled p1, p2, and p3. The p1 window shows the compilation of P1.c and the creation of executable files: (base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar\$ gcc P1.c -o p1. The p2 window shows the compilation of P2.c and the execution of p1: (base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar\$./p1. The output is "Waiting for P1". The p3 window shows the compilation of P3.c and the execution of p1: (base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar\$./p2. The output is "Waiting for P1". The p3 window also shows the compilation of P3.c and the execution of p2: (base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar\$./p3. The output is "Waiting for P2".

Enter a Weak Password as below and we can see that it prints Password is Weak:

```
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ gcc P1.c -o p1
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ls
P1.c  P2.c  P3.c  a.out  p1    p2    p3
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p1
Enter Password :
Hello!!!!@
Password Is Weak
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$
```

```
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ gcc P2.c -o p2
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p2
Waiting for P1
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$
```

```
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ gcc P3.c -o p3
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p3
Waiting for P2
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$
```

Enter a Strong Password and See the Corresponding Output:

```
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ gcc P1.c -o p1
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ls
P1.c  P2.c  P3.c  a.out  p1    p2    p3
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p1
Enter Password :
Hello!!!!@
Password Is Weak
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p1
Enter Password :
Hi@08:00@
Password Is Strong
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$
```

```
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ gcc P2.c -o p2
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p2
Waiting for P1
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p2
Waiting for P1
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$
```

```
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ gcc P3.c -o p3
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p3
Waiting for P2
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$ ./p3
Waiting for P2
(base) Gokuls-MacBook-Pro:sharedMemFinal gokulsreekumar$
```