

4. Write a C/C++ program which demonstrates interprocess communication between a reader process and a writer process. Use mkfifo, open, read, write and close APIs in your program.

```
/*Writer Process*/
```

```
#include <stdio.h>
#include <fcntl.h>
#include <sys/stat.h>
#include <sys/types.h>
#include <unistd.h>
```

```
int main()
{
    int fd;
    char buf[1024];

    /* create the FIFO (named pipe) */
    char * myfifo = "/tmp/myfifo";
    mkfifo(myfifo, 0666);
    printf("Run Reader process to read the FIFO File\n");
    fd = open(myfifo, O_WRONLY);
    write(fd, "Hi", sizeof("Hi"));

    /* write "Hi" to the FIFO */
    close(fd);
    unlink(myfifo); /* remove the FIFO */
    return 0;
}
```

```
/* Reader Process */
```

```
#include <fcntl.h>
#include <sys/stat.h>
#include <sys/types.h>
#include <unistd.h>
#include <stdio.h>
```

```
#define MAX_BUF 1024
```

```
int main()
{
    int fd;
```

```

/* A temp FIFO file is not created in reader */
char *myfifo = "/tmp/myfifo";
char buf[MAX_BUF];

/* open, read, and display the message from the FIFO */
fd = open(myfifo, O_RDONLY);
read(fd, buf, MAX_BUF);
printf("Writer: %s\n", buf);
close(fd);
return 0;
}

```

OUTPUT

```

secabiet@secabiet-Vostro-3470:~/afreen$ gcc writer.c
secabiet@secabiet-Vostro-3470:~/afreen$ gcc reader.c

```

```

secabiet@secabiet-Vostro-3470:~/afreen$ ls
a.html      Calculator.class  DistanceConverter  reader.c
a.out       CalculatorP.class pgm6               TC
appletp.class CalculatorP.java  pgm6.zip          writer
appletp.java CurrencyConverter reader            writer.c

```

```

secabiet@secabiet-Vostro-3470:~/afreen$ gcc writer.c -o writer
secabiet@secabiet-Vostro-3470:~/afreen$ gcc reader.c -o reader
secabiet@secabiet-Vostro-3470:~/afreen$ ./writer

```

Run Reader process to read the FIFO File