

WEEK -6

1. **Problem Statement:** Write a C for the implementation of FIFO.

```
// The code for writing in the file myfifo.
```

```
#include <stdio.h>
```

```
#include <string.h>
```

```
#include <sys/stat.h>
```

```
#include <fcntl.h>
```

```
int main() {      int fd ,  
numberOfBytes ;   char  
str[100];
```

```
    mknod("myfifo" , S_IFIFO| 0666 , 0);  
fd = open("myfifo" , O_WRONLY);  
printf ("Writing in the fifo : \n");
```

```
while (fgets(str, sizeof(str), stdin)){
```

```
    numberOfBytes = fwrite(fd , str , strlen(str));  
    printf ("Writer process writes %d bytes : %s\n" , numberOfBytes , str);
```

```
}
```

```
return 0;  
}
```

```
// The code for reading in the file myfifo.

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

int main(){
    int numberOfBytes , fd ;
    char arr[100];

    mknod("myfifo" , S_IFIFO|0666 , 0);
    int fd = open("myfifo" , O_RDONLY);

    do{
        numberOfBytes = read(fd , arr , sizeof(arr));
        arr[numberOfBytes] = '\0';
        printf("Reader process reads %d bytes : %s\n" , numberOfBytes , arr);
    }while (numberOfBytes > 0 );

    return 0;
}
```

OUTPUT

- **Writer Terminal**

```
geu@CSITLAB1-18:~$ ./a.out
My name is Saloni.
Writing in the fifo :
Writer process writes 18 bytes : My name is Saloni.
^C
```

- **Reader Terminal**

```
geu@CSITLAB1-18:~$ ./a.out
Reader process reads 18 bytes : My name is Saloni.
^C
```