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Statement: Inter process communication in Linux using:

A. FIFOS: Full duplex communication between two independent processes. First process accepts sentences and writes on one pipe to be read by second process and second process counts number of characters, number of words and number of lines in accepted sentences, writes this output in a text fileand writes the contents of the file on second pipe to be read by first process and displays on standard output.

Code:

```
#include<stdio.h>
#include<unistd.h>
#include<sys/stat.h>
#include<fcntl.h>
#define MAX_BUF 1024
int main(){
        int words=0,lines=0,chars=0;
        FILE *fp;
        char buf[MAX_BUF];
        int fd,fd1,i=0;
        char *myfifo1="myfifo1";
        char *myfifo2="myfifo2";
        mkfifo(myfifo2,0777);
        fd=open(myfifo1,O_RDONLY);
        read(fd,buf,MAX_BUF);
        printf("\nmessage received :%s",buf);
        while(buf[i]!='\0'){
                if(buf[i]==' '||buf[i]=='\n')
                {                               words++;
                }
                else
```

```
                chars++;
        if(buf[i]=='\n')
                lines++;
        i++;
    }
    words++;
    lines++;
    printf("\nNo. of lines are :%d\n",lines);
    printf("\nNo. of words are :%d\n",words);
    printf("\nNo. of chars are :%d\n",chars);
    fp=fopen("a.txt","w+");
    fprintf(fp,"\nNo. of lines are :%d\n",lines);
    fprintf(fp,"\nNo. of words are :%d\n",words);
    fprintf(fp,"\nNo. of chars are :%d\n",chars);
    fclose(fp);
    close(fd);
    unlink(myfifo1);
    fd1=open(myfifo2,O_WRONLY);
    system("cat a.txt>myfifo2");
    close(fd1);
    return 0;
}
/*OUTPUT:
student@student-OptiPlex-390:~/38$ ./7b2
message received :Hello World
No. of lines are :1
No. of words are :2
No. of chars are :10
student@student-OptiPlex-390:~/38$ */
```