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**Roll** **no**.: 03

**Assignment no.: 07(A):** Inter process communication in Linux.

**CODE: (FIFO1)**

#include <string.h>

#include <stdio.h>

#include <unistd.h>

#include <sys/types.h>

#include <sys/stat.h>

#include <fcntl.h>

#define FIFO1 "fifo1"

#define FIFO2 "fifo2"

int main()

{

    char buf[100],buf1[100],str;

    int fd,fd1,i=0;

    //memset(buf1,'\0',sizeof(buf1));

    printf("\nEnter the string : \n");

    while((str=getchar())!='#')

        buf[i++]=str;

    puts(buf);

    mkfifo("fifo1",0666);

    fd=open("fifo1",O\_WRONLY);

    write(fd,buf,sizeof(buf));

    printf("\nMessage sent");

    close(fd);

    fd1=open("fifo2",O\_RDONLY);

    read(fd1,buf1,sizeof(buf1));

    printf("\n\nMessage received");

    printf("%s",buf1);

    close(fd1);

    return 0;

}

**CODE: (FIFO 2)**

#include <string.h>

#include <stdio.h>

#include <unistd.h>

#include <sys/types.h>

#include <sys/stat.h>

#include <fcntl.h>

#define FIFO1 "fifo1"

#define FIFO2 "fifo2"

int main()

{

    char buf[100],buf1[100];

    int fd,fd1,words=0,lines=0,characters=0,len,i,count=0;

    char ch;

    FILE \*fp;

    fd=open("fifo1",O\_RDONLY);

    memset(buf,'\0',sizeof(buf));

    read(fd,buf,sizeof(buf));

    printf("\nMessage received\n");

    printf("%s",buf);

    close(fd);

    for(i=0;buf[i]!='\0';i++)

    {

        if(buf[i]==' ' || buf[i]=='\n' || buf[i]=='#')

            words++;

        if(buf[i]=='\n' || buf[i]=='#')

            lines++;

        if(buf[i]!=' ' && buf[i]!='\n' && buf[i]!='#')

            characters++;

    }

    printf("\nCounts are :\nCharacters: %d \nWords: %d \nLines: %d\n",characters,words,lines);

    fp=fopen("f.txt","w+");

    fprintf(fp,"\nCharacters: %d",characters);

    fprintf(fp,"\nWords: %d",words);

    fprintf(fp,"\nLines: %d\n",lines);

    fclose(fp);

    fp=fopen("f.txt","r");

    i=0;

    while((ch=fgetc(fp))!=EOF)

    {

        buf1[i]=ch;

        i++;

    }

    printf("\nBuffer contents");

    printf("\n%s",buf1);

    fclose(fp);

    unlink("fifo1");

    mkfifo("fifo2",0666);

    fd1=open("fifo2",O\_WRONLY);

    write(fd1,buf1,sizeof(buf1));

    printf("\nMessage sent\n");

    close(fd1);

    return 0;

}

**OUTPUT:**

Enter the string :

Hello this is Akshat#

Hello this is Akshat

Buffer contents

Hello this is Akshat

Characters: 17

Words: 4

Lines: 1