

i»;Name:- Divyesh Mali
Roll No:-27
program No:-10

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#include<stdio.h>
#include<unistd.h>
#include<string.h>
#include<stdlib.h>

int main(void)
{
    int fd1[2], nbytes=1,fd2[2],a=0;
    pid_t pid;
    char string[80];
    char readbuffer[80];
    char ch='a',ch1='\n';
    FILE *fp;

    pipe(fd1);//PIPE CREATED
    pipe(fd2);//PIPE CREATED

    /*Error in fork*/
    if((pid = fork()) == -1)
    {
        perror("fork");
        exit(1);
    }

    //Child Process
    if(pid == 0)
    {
        close(fd1[1]);          /*closing write end of Pipe 1*/
        read(fd1[0], readbuffer, sizeof(readbuffer));    /*reading
filename through Pipe 1*/
        printf("\nFilename '%s' is being read by Child Process
through Pipe 1...\n",readbuffer);
        fp=fopen(readbuffer,"r");
        close(fd1[0]);          /*closing read end of Pipe 1*/
        close(fd2[0]);          /*closing read end of Pipe 2*/
        printf("\nContents of %s are being sent to Parent Process
through Pipe 2...\n",readbuffer);
        while(a!=-1)
        {
            a=fscanf(fp,"%c",&ch);
            write(fd2[1], &ch, sizeof(ch));    /*writing contents of
file on Pipe 2*/
        }
        close(fd2[1]); /*closing write end of Pipe 2*/
        exit(0);
    }

    //Parent process
    else
    {
        close(fd1[0]); /*closing read end of Pipe 1*/
        printf("IN PARENT PROCESS\n" );
        printf("\nEnter name of file:");
        scanf("%s",string);
    }
}
```

```

        printf("Filename is being sent by Parent Process to Child
Process through Pipe 1...\n");
        write(fd1[1], string, (strlen(string)+1)); /*writing
filename on Pipe 1*/
        close(fd1[1]); /*closing write end of Pipe 1*/
        close(fd2[1]); /*closing write end of Pipe 2*/

        printf("\nContents of %s are being received by Parent Process
through Pipe 2...\n\n",string);
        printf("IN PARENT PROCESS\n" );
        printf("\nReceived Message:\n");

        while(nbytes!=0)
        {
                printf("%c",ch1);
                nbytes = read(fd2[0], &ch1, sizeof(ch1)); /*reading
contents of file from Pipe 2*/
        }
        close(fd2[0]); /*closing read end of Pipe 2*/
    }
    return(0);

```

output:-

```

pvg-aids-ml@pvgaidsm1-HP-ProDesk-400-G4-SFF:~/Desktop/harshada02$ gcc
pract_10.c -o pract_10
pvg-aids-ml@pvgaidsm1-HP-ProDesk-400-G4-SFF:~/Desktop/harshada02$
./pract_10
IN PARENT PROCESS

```

Enter name of file:new1

Filename is being sent by Parent Process to Child Process through Pipe 1...

Contents of new1 are being received by Parent Process through Pipe 2...

IN PARENT PROCESS

Received Message:

Filename 'new1' is being read by Child Process through Pipe 1...

Contents of new1 are being sent to Parent Process through Pipe 2...

a